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PHILOSOPHICAL ESSAYS.

LONDON  
PRINTED BY SPOTTISWOODE AND CO.  
NEW-STREET SQUARE



THREE ESSAYS

ON

PHILOSOPHICAL SUBJECTS.

BY

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*'Je ne veux point être philosophe, je veux être homme.'*

LONDON:

LONGMANS, GREEN, AND CO.

1866.



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### *Errata.*

Page 47, line 9, *for shallow read shallower.*

„ 48, „ 3, „ and wide *read abroad.*

„ 72, „ 15, „ Toos *read Ṭoos.*

„ 72, „ 25, „ Feelsafeh *read Filásafeh.*

N.B.—Herr Gosche, in his monograph “*Ueber Ghazzâlîs Leben und Werke,*” points *Tehafet el-Filásafeh* to be read, in our orthography, *Tehafot el-Felásafih.*



A POPULAR ESSAY ON

THE INFINITE.



‘ Thus, therefore, the natural course of human reason is constituted. First, this convinces itself of the existence of *some* necessary being. In this being it cognises an independent existence. Then it seeks the conception of the independent of all condition, and finds such, in that which itself is the sufficient condition of every other, that is, in that which contains all reality. But the All without limits is absolute unity, and carries along with it the conception of an only, namely, the highest being, and thus reason concludes that the highest being, as the original of all things, exists absolutely necessarily.’—*Kant’s Critick of Pure Reason.*

THE comprehension of the Infinite is the only hopeless problem that presents itself to the human intellect. However mysterious the phænomena of material existence may appear, none dare to say how far the human mind may not yet unveil their secrets, and lay open the working of agencies yet unthought of—the keys that will explain what is at present unintelligible. But the Infinite must for ever

remain beyond our grasp; and, while the necessity of its existence is forced upon our belief, its magnitude is unapproachable by our understanding.

It is as with men who, toiling up a mountain, find their progress stayed by a range of insurmountable precipices: they have so far shown the way, and so far others may follow, but for ages, it may be, get no higher. At last some sharper wit discovers, or some happy accident reveals, where behind a rocky buttress, or hidden by a fallen block, lies the entrance to the path that scales the height. The first steps of the way may have been long known, but those who discovered them dreamed not of their leading to the summit; for time had so confirmed their belief in the impossibility of reaching it, that they never wasted a thought on the attempt. They were searching for crystals among the rocks; chimerical visions of gain, and not the glories of discovery, were the stimulants of their industry. But the way is found; the cliff is surmounted; the path is soon made wider and smoother; and the feeble and the young can pass where at first there was diffi-



culty and danger even to the hardy and practised mountaineer. The true summit, though, is not yet reached; a greater range of landscape is opened to the view, and much has been gained, yet the traveller cannot see all around; other cliffs must be surmounted, that look as hopeless now as the last did centuries ago. This is the progress of human discovery in the knowledge of the Finite. The summit is always being neared, and none can say whether it may be ultimately attained or not. But the star in the heavens glittering over his head is to the Alpine traveller what the comprehension of the Infinite is to the philosopher—unattainable. The traveller, indeed, as he climbs the mountain, actually shortens the distance between himself and the star, but the philosopher, however far he may ascend in the pursuit of knowledge, never lessens by one hair's-breadth the immeasurable space that separates him from the realisation of the Infinite.

Although the mountaineer, however, can never reach the star, he may learn much about it in its relations to the world he inhabits,

and the system to which it belongs. He may ascertain, for instance, how many thousand times it is more distant from him than the sun—how it probably rivals it in magnitude, and resembles it in nature—that when the light that now reveals to him its existence first started on its long journey, the oldest living inhabitant of the earth was yet unborn, nay, perhaps the race of man had not been formed from the dust.

So, while the actual comprehension of the Infinite is, and must ever be, impossible to the human intellect, we may still learn much of its relations to the Finite, and its qualities or attributes; and the more readily as those relations are all *definite*, and those attributes necessarily *absolute*.

The existence of infinite space cannot be proved, and cannot be gainsaid. To the ancients, the sky seemed the boundary of the universe; and, though some philosophers held that behind it was the fiery atmosphere, or *æther*, Aristotle doubted that there was even empty space beyond that limit. They had no means of observing, and, consequently, no adequate idea of the relative

distances of the heavenly bodies. They were aware that the moon, the sun, and the planets were nearer to the earth than the fixed stars, but their ideas of any difference of distance among the latter were vague and uncertain. The telescope, and the discoveries of modern science in the nature and properties of light, have given us very different data to reason from ; and the idea of the infinite extension of space springs up in the mind of the modern philosopher with the force of an intuition.

We exist in the centre of all things, and so does every created thing, whatever may be its place in the universe. In space, a system, a sun, a world, a man, a microscopic animalcule, are all of the same size viewed relatively to the infinite whole. The ratio of the Finite to the Infinite is infinitely small, and absolutely invariable.

Throughout this space, of which we cannot realise the immensity, we are led by analogy to believe that bodies similar to the fixed stars exist in infinite number. Besides the stars visible to the naked eye, the telescope has discovered many more : it has resolved the

bright, cloud-like milky way into separate stars, and discovered other clouds before invisible, which have again been resolved by higher magnifying power only to have their places filled by the discovery of new nebulæ. The fixed stars which we see with the naked eye, seem, together with our sun, to form a system having a centre, round which the several stars revolve, as the planets do around the sun. That this system of suns should be composed of a number of planetary systems, like our own, seems probable. That a number of these systems should form again a system of a higher order, which again takes its place in a system of a still higher order, and so on *ad infinitum*, seems necessary, if we consider the law of Attraction to be universal. For, however great may be the distance between any two bodies, or systems of bodies in space, they would ultimately be drawn together by their mutual attractions, unless they revolved in orbits round their common centre of gravity. The distance between the suns in a system, and still more between the stellar systems themselves, is so great, that it might be imagined that the mutual attractions

in these cases were really zero, but though relatively nothing compared to the forces of attraction acting in the planetary system, and though they may produce no sensible effect in such a limited time as has elapsed since man first appeared upon the earth, yet they are really existing forces, and as we cannot limit the duration of their action, we must not limit their effects. When we find, then, that our sun, and the system of which it forms a part, move in orbits round a centre, we are fairly entitled by analogy to infer that the same means are employed to prevent the ultimate collision of the infinite number of orbs that are planted throughout the infinity of space.

The orbital motion of the heavenly bodies is best illustrated to our comprehension in our own system. Of it the sun is the prime centre round which the planets revolve. These again form minor centres around which their satellites describe orbits, as *they* do round the sun. But besides the recognised planets and planetoids, and their recognised satellites, we have reason to believe that numerous bodies follow the same laws, though

so small as to be invisible by the light which they reflect. The meteors which appear in our sky, more particularly at certain seasons, are supposed to be small bodies rotating round the sun in zones or belts, which the earth is traversing at the time when they are observed, and then those nearest to it, drawn from their course by the attraction of its mass at so short a distance, are heated to incandescence by the velocity of their flight through the upper strata of the atmosphere, and so become visible as they perish. Similar bodies may revolve as satellites round the earth or moon. Indeed, if, as above supposed, the earth, and consequently the moon, pass regularly through bands of these revolving masses, it is hardly possible to conceive that some of them escape the fate of becoming satellites to the one or the other. How small may be the lowest limit of the size of such bodies we cannot possibly say, and how far the descending series of systems, where the suns are satellites, we may not even conjecture.

Though the number of bodies which are scattered through space may fairly be supposed to be infinite, yet they do not fully

occupy space, and between them there are vast volumes of what was once held in the opinion of philosophers to be perfect vacuum—space destitute of all matter. Leibnitz, in his correspondence with Dr. Samuel Clarke, maintained that such a thing as a vacuum could not possibly be conceived of in the universe; as it was manifestly contrary to all proper and philosophical ideas of the goodness of God to suppose that He left any portion of Infinity unoccupied. Dr. Clarke replied that, if the goodness of God was in any way to be measured by the quantity of matter in creation, He could not be infinitely good unless space were filled with the densest form of matter that could possibly exist: and that, as that was manifestly not the case, the goodness of God must be totally independent of the actual amount of matter in creation.

As God is not the God of matter only, and as in nowise can His goodness or glory as a Creator depend on the quantity of created matter, the argument of Leibnitz fails. Singular to say, it has been used recently to show the probability of the existence of an infinity

of stars, by an author who denies the presence of matter in interplanetary space.\* The reply of Dr. Clarke is as little to the purpose as the argument of Leibnitz, for if all space be filled by matter, the quantity of that matter will be infinite, whatever be its density. In truth it is impossible to prove that *all* space is full of matter, or even to conjecture it, on purely metaphysical grounds.

We must first see by observation if that portion of it which lies within the limits of our research be, or be not so filled; and then, if we can by analogy reasonably infer that all other space is similarly conditioned.

Modern science here aids us to a solution of the query. Light is now, we may safely say, not *considered* but *proved to be*, not a kind of matter, but *an affection* of matter. It is not a material emanation from luminous bodies, but a number of undulations originating in those sources of light, and propagated either by the aptitude of the contiguous matter to transmit or otherwise deal with them, or by means of *luminous æther*; a medium pervading all other matter, of which

\* Lardner's *Astronomy*.



the function in creation is to transmit the undulations of light, but which is altered in its conditions by the nature of the substances which it pervades. Whichever theory be adopted the result that we look for is the same, *light cannot pass where matter does not exist*,—a perfect vacuum would be perfect opacity. But light comes to us not only from the various bodies of our own system, but from the remote nebulæ that constitute stellar systems, at a distance so great from us that though the attempt may be made to record it in figures, the imagination can form no distinct idea of the reality. Through this portion of space, then, there must be matter diffused without a break; and as this is as far as our own observation can carry us, and no reason can possibly be assigned why any other portion of space, about which we know nothing, should be differently constituted, we may legitimately infer that through Infinity matter exists in uninterrupted extension. There are other results of observation besides the one we have just employed, which lead us to believe that all space is filled with matter; but, as *it* is adequate to our purpose, and *they*

generally apply only to the space occupied by our solar system, we have purposely omitted their consideration. There are also enquiries of great interest connected with the nature of the matter which fills the immensity of Infinity, and with the existence, or non-existence, of that form of matter to which the old name of *æther* has been applied by modern philosophy; but such investigations do not form any part of our present subject.

We have, so far, viewed the material Infinite as existing in two forms: first, an Infinity of celestial bodies, scattered through the Infinity of the universe; and, secondly, an Infinity of matter filling all the interstellar space. We must now consider whether there may not be an Infinite in the descending scale of creation, an immeasurable and inconceivable universe of minuteness, where the microscope takes the place of the telescope, and where the mind has to struggle in attempting the realisation of actually observed diminutiveness, such as the size of a coral madreporite or a *Gaillonella*, as much as in trying to comprehend the distance of a star, or the velocity of a comet in perihelion.

In the animal creation we know that the series of minuteness descends as far as our power of observation enables us to follow it, but we cannot by analogy infer that it goes on diminishing *ad infinitum*; for, to our experience, it does not increase indefinitely in the opposite direction:—the superior limits both of magnitude and organisation are known to us. It may be observed, however, that those limits are not conterminous, and that in the descending scale physiological simplicity is not the concomitant of decreasing bulk. For instance, the smallest mammal animal stands higher physiologically than the largest fish, and a water-tiger, revealed by the microscope, ranks above the most splendid actinia that ever adorned the margin waters of a tropical ocean. In the same way, we may not conclude that other organic life has not an inferior as well as a superior limit.

But the question of the infinite divisibility of matter is to be differently examined: no analogy can aid us in its settlement; and no want of analogy can interfere with its determinate solution. It has been a subject of contention since philosophy has been studied

by mankind. The separation of the two ideas of absolute matter, and of body,\* *i.e.* the form under which matter is perceived by us, was first started by the Pythagoreans, and though it is doubtful whether Pythagoras himself believed in the existence of atoms, his follower Empedocles clearly asserted that matter consists of round indivisible particles. The Eleatics, who sprang from the Pythagoreans, may be considered the most energetic atomists, and Democritus among them stands preeminent for his fundamental doctrines of the existence of atoms and a vacuum. Aristotle, while rejecting the Atomic theory, gave a clearer insight than the Pythagoreans into the manner in which matter and body are connected, dispensing with the use of the four elements, which *they* considered necessary as the first step in the formation of all bodies. But Plato is the purest specimen of the non-atomic school; and his physical ideas, as interpreted by Cicero, may be taken as the type of the most perfect speculation among ancient philosophers on the nature of

\* Absolute matter=substance=the Noumenon : Body =Substance *plus* quality=the Noumenon *plus* the phænomenon.

matter—setting apart his restoration of the four elements to their place under the Pythagoreans. ‘Sed subjectam putant,’\* says Cicero, ‘omnibus sine ullâ specie, atque carentem omni illâ qualitate materiam quamdam, ex quâ omnia expressa atque efficta sint: quæ tota omnia accipere possit, omnibusque modis mutari, atque ex omni parte; eoque etiam interire, non in nihilum, sed in suas partes, quæ infinite secari ac dividi possint, quum sit nihil omnino in rerum natura minimum, quod dividi nequeat: quæ autem moveantur, omnia intervallis moveri; quæ intervalla item infinite dividi possint. Et quum ita moveatur illa vis, quam qualitatem esse diximus, et quum sic ultro citroque versetur: et materiam ipsam totam penitus commutari putant, et illa effici, quæ appellant *qualia*, e quibus in omni naturâ cohærente et continuatâ cum omnibus suis partibus effectum esse mundum: † extra quem nulla pars materiæ sit, nullumque corpus: partes autem mundi esse omnia; quæ insint in eo, quæ naturâ sentiente teneantur; in quâ ratio perfecta insit, quæ sit eadem sempiterna.’ ‡

\* Sc. Academici. † Mundus = Κόσμος, *i.e.* the universe.

‡ Cic. *Acad. Post.* cap. 7.

As far as matter is concerned, the above is almost identical with the Cartesian doctrine on the subject; but Sir Isaac Newton held atomic views worthy of Democritus.

More recently, the discovery of the combining proportions of what are called the elementary substances, has given rise to another form of the Atomic theory, though it is by no means a new one. Those combining volumes, or quantities—more properly, combining ratios—are supposed to owe their existence to the atomic constitution of the matter of which the several bodies are composed. Thus, there must either be several different kinds of atoms, *i.e.* of matter; or the so-called atoms are not the ultimate condition of matter. The first supposition is that held long ago by Anaxagoras, that all bodies were composed of atoms of the same form as that of the complete body, just as we now know that if we powder a crystal to impalpable dust, each particle of the dust will be a crystal of the same kind as the original. The application of such an hypothesis to explain the nature of those forms of body, or substance, which we cannot further resolve,

does not involve the same manifest absurdities, which soon exploded the doctrine of the Ionic philosopher, but it is sufficiently unnecessary and unwarranted to merit all but—what we cannot in the present state of our knowledge give it—a summary negation. How can we assert that any bodies are elementary? For ages earth, air, fire, and water were called the elements; three are compound and one is not material. Is it not as easy to suppose that the unresolved substances in question combine in certain ratios from the conditions of their existence as such substances—much in the same way that a given quantity of water dissolves a certain quantity of sugar, or salt—as that they so combine from their ultimate nature? Any theory of finite atoms leads to inexplicable difficulties in the higher speculations of physical science,\* which do not exist when matter is considered as ultimately homogeneous,† and

\* See Faraday, *Lond. and Edin. Phil. Mag.* 1844, vol. xxiv. p. 136,

† The word *homogeneous* does not properly express the nature of uniform unconditioned matter, *i.e.* matter free from all trace of structure, but it is employed here for want of a better.

infinitely divisible. That form of the Atomic theory which asserts matter to be composed of *infinitely* small atoms, must mean this, if it means anything.

It may be objected to the theory of the Infinite Divisibility of Matter, that it involves an absurdity, making the Finite contain the Infinite;\* but the paradox is only apparent, for the Finite and the Infinite in this case are not of the same nature. The Finite is the Finite of *quantity*, the Infinite is the Infinite of *number*. The *infinitely small* has no *quantity*: an infinitely small atom, or, as we should prefer to say, an infinitely small *portion*, of matter, could only be a mathematical point—that which has position but not magnitude; and it never really exists, although the supposition of the Infinite Divisibility of Matter is no more affected by its non-existence than the Infinite Divisibility of Time—which is generally allowed—and of Space—on which much exact mathematical science is founded—are affected by the impossibility of our apprehending by themselves infinitely small portions of either.

\* See below, *Essay III*, p. 255.



Having considered the Infinite in connection with matter as existing on the one hand in quantity and number, and so filling the infinity of Space, and on the other hand, in number without quantity, and so existing in every finite portion of matter, however minute, we shall now consider the Infinite in connection with spiritual existence. But first, let us consider how the idea of any existence is originally presented to us, and how we arrive at the conclusion that there must be an Infinite Spiritual Existence in the Universe.

The idea of our own existence is obviously innate. Children and idiots alike act upon it, and we may say that even the lower animals thoroughly recognise it. It is only a philosopher who would dream of calling it in question. The belief in our sensations as of things external to us is also innate. The child stretches forth its hand to the candle, or the glittering coral, not to ascertain—it has not yet learned to be a sceptic — whether they be there or not, but because it is certain that they are there. The hardness of the coral, or the heat of the candle, are not known until

experienced ; but, being immediately experienced through the medium of sensation, are called *intuitive*, or *presentative* ideas, while the remaining class of ideas, which are the result of judgements formed on the innate and intuitive, are called *representative* ideas.\* Now the idea of an infinite existence is of the latter class ; far from being innate, it is not even intuitive. We have no sensible experience of such an existence, the notion of it is the result of reflection. Mr. Locke shows this with sufficient clearness† in his *Essay on the Human Understanding*, while he also shows that though the idea be not innate, it follows so naturally, as a result of our observation and reflection, that it is all but absolutely universal.

All men—even philosophers who deny it—believe that they exist, and that there are other material existences without themselves. The superstructure which reason builds upon this foundation is infinitely varied, according to the power which the individual reason may

\* There are other powers of the mind—memory and imagination—which give us representative ideas, but it is only as judgements that we are here concerned with them.

† *Essay on the Hum. Under.* B. i. cap. 4. § 8.

possess. When the intellect is utterly unenlightened, it has even been found that no superstructure has been begun, and that the idea of a God is absolutely wanting; and this ignorance, unfortunately, is not confined to some few tribes of savages, but is to be found occasionally in individuals among the uneducated classes in our own country.\*

But man soon knows by experience that neither he nor any of the ordinary existences around him have been from time immemorial. The tree springs from a seed, and decays in the maturity of years. The animal creation has but a short life. None of them can create, not even he himself, the highest intelligence that he is acquainted with; nay, not one of them can sustain life, of which the very principle is a mystery. Still creation goes on, still life is sustained, and soon man, learning that all effect must be produced by some cause, begins to look for that Great First Cause that produces all things. What has he first to look to? Those things the origin of which is too remote for him to know or for tradition to record, and which he therefore

\* See *Report of Colliery Commissioners, Blue Book: &c.*

believes to have existed for ever. The sun, the moon and stars, the earth and the sea, are to him everlasting beings. The sun gives light and heat, and through his action all things spring and live; the earth yields all things from her fruitful bosom; man himself is but dust, and sprung from the earth returns to it again. These are naturally the early gods of dawning enlightenment. In time man learns that the sun, moon and stars, the earth and sea, and air, are themselves creatures; and gradually discovers that matter can have no power of producing life creatively, or sustaining it when created; then man begins to infer that the First Cause must be a spirit. Here it is that the great source of polytheism lies; from this point have sprung the Pantheons of the nations of the world. Men deified not the whole, but parts only; and god after god was glorified, till heaven ran over. Besides, the intellect of man, far from viewing the universe as a whole, was as yet unconscious of even the nature and extent of the world in which it dwelt; and each one looking upon his own country and his own tribe, upon their wants, and what was good to them, varied the attributes of his deities

according to circumstances, and gave them so local a nature that, afterwards, when nations began to know more of one another, their gods were still confined to their native countries, and filled much the same place as the patron saints of the present day. This often produced a rivalry as to power and greatness, keenly contested by the votaries of neighbouring divinities. We find it even among the Israelites when they had sunk from the eminence on which the original revelation to Abraham and Jacob, and the later one to Moses had placed them, and began to worship the gods of the surrounding heathen. Elijah, when he called down fire from heaven that consumed the sacrifice and wood upon the altar, and licked up the water in the trenches, was only looked upon by the multitude as engaged in a contest with the priests of Baal as to the power of the divinities, whom they respectively represented, and when, on seeing the miracle, they cried out, ‘the Lord he is the God,’\* they did not mean to imply that Baal was not a god also ;

\* Comparé *l.c.* 1 Kings xviii. 39, יְהוָה הוּא הָאֱלֹהִים, with Ps. c. 2, יְהוָה הוּא אֱלֹהִים, without the article ; though יְהוָה הָאֱלֹהִים is used several times *in apposition*, for the

only that the God of Elijah was the greater, and more powerful, and consequently better worth serving. Had their conviction been that Baal was not a god at all, it would surely have led to the abnegation of his worship, which we know did not take place, although at that time, by the orders of Elijah, they slew his unsuccessful prophets. It almost appears certain that many, if not most, of the Israelites worshipped Baal without denying the existence of the true God, the God of their fathers; at least it is quite clear that this was the case with Ahab. The Pentateuch was still their legal code, and they still believed, though their belief was not pure, in the God of Moses who instituted it.\* As Paley says, it was the liability of the Jews to be led away by strange gods, arising out of their peculiar local situation, that demanded the penalties threatened for idolatry, and afterwards fulfilled, which are specially attached to the second commandment.

common יהוה אלהים apparently without any emphatic meaning, unless it be in 1 Sam. vi. 20.

\* Bossuet, *Discours sur l'Histoire Universelle*, 1<sup>ère</sup> Partie, VI<sup>me</sup> Epoque, B.C. 975.

If such were the case with a nation favoured by direct revelation from God, what must it not have been with others not so enlightened? Accordingly we find the religious ideas of one country imported into another, and in the declining years of paganism in Europe, a confusion that paved the way for Christianity.

But among all idolatrous and polytheistic nations, we see the existence at times of minds that, having risen higher in their views of creation than the surrounding masses, saw with more or less clearness that a single Infinite existence must have been the Creator, and must remain still the upholder of the universe; and that monotheism always appeared when philosophy had advanced to any considerable development. Even in the polytheism of the Greeks and Romans—without adverting to the monotheistic views of individual philosophers, particularly among the former—there is the implied foundation, or first idea of it. Jupiter is supreme. The other gods may work each in his own sphere, and so long as they do not interfere with the purposes of the Father of gods and men, they

may do their pleasure. But when *he* wills, all must yield :

Celestial states, immortal gods ! give ear,  
Hear our decree, and reverence what ye hear ;  
The fixed decree which not all heaven can move !  
Thou, Fate, fulfil it : and ye powers ! approve.\*

In the later philosophy of Greece and Rome, the personality of the gods was utterly set aside by many of the sects of philosophers, and they reasoned not of the nature of the divinities, but of the Divine nature. Even Xenophon, in his defence of Socrates, cannot clearly show that that great philosopher really believed in and worshipped all the gods of the Athenians. He only proves that he was a regular consulter of the oracles, and an upholder of public worship as established in the country, while at all times he talks of the Deity as one and indivisible.†

\* It is almost needless to say that these words are Pope's, not Homer's : that the idea, however, is not only Homeric, but generally classical, see Smith's *Dict. of Gr. and Rom. Biog. and Myth.* Art. 'Moira.'

† See on this Voltaire, *Essai sur les Mœurs et l'Esprit des Nations*, cap. 'Des Sectes des Grecs ;' also Enfield's *Hist. of Phil.* on 'Orpheus.'



In such wise, not alone in Europe, but in all the world, the general enlightenment of mankind has, in spite of prejudice and superstition, opened up the human mind to a clearer and more exalted view of the Great First Cause, the author and upholder of all things. In our own day, that is in the epoch at present working on to maturity, but a few years have elapsed since, with all the aids of revelation, the mind of man has begun to clear itself from utter darkness as to what it should believe of God. It is only since the elder Herschel broke down the barriers of space,\* and the idea of *its* infinity has become more familiar to the human mind, and more generally recognised as a truth,—that Infinite Extension as an attribute of the Infinite Spiritual Existence, or God, has been more clearly and easily understood by the great bulk even of those who are called ‘the

\* ‘William Herschel (as the inscription on his monument at Upton finely says) broke through the enclosures of the heavens (*cœlorum perrupit claustra*); like Columbus, he penetrated into an unknown ocean, and first beheld coasts and groups of islands, whose true position remains to be determined by succeeding ages.’—Humboldt, *Cosmos*.

educated classes.' How meagre and how feeble must be the idea conveyed by the sublime words of Solomon, 'Behold, the heaven and the heaven of heavens cannot contain Thee,' to those whose highest notion of heaven is that of a town or a country behind the blue firmament of a summer sky! *Now*, although we cannot comprehend this reality in its vastness, we have a wondrous domain for our reason, and an illimitable range for our imagination.

As no portion of space can be conceived of as empty, lost, or waste, God must be infinite in extension. This is more generally and universally recognised in considering Him as filling the Infinity of Immensity than as utterly pervading the Infinity of Minuteness. While, without faltering for an instant, the human mind at once perceives that His existence extends for ever and ever beyond the limits of its grasp, it is a common, only too common an error for it practically to deny that He must dwell in the most minute and commonplace object of its observation. The most general delusion is that though God *can be* omnipresent, *He is not*

*really so* ; that He retires into some unknown portion of His dominions, and leaves the government of the rest to an agency delegated by Him, a Demiurge, which men call ‘the Law of Nature,’ or name by any other name that their caprice may dictate. Even were it granted that such a delegation is made—though the assumption is at once absurd and unnecessary—it is clear that any power in the delegate can only exist by and through the continual exertion of the power of the Great First Cause : otherwise there would exist in creation sources of causation independent of Him ; or, He would virtually have abdicated part of His supremacy ; and polytheism would no longer be the defective superstition of the unenlightened mind, but a reality and the true religion.

God must be *in* everything ; there is no point so distant that He cannot reach it, nor is there a speck so minute that He does not pervade it. Before the Infinite in Extension there is neither distance nor magnitude. All points of Infinity are in His presence, and to Him all finite magnitudes are equal—*absolutely equal*, so that we may either say that

to Him they are equally small or equally great. A particle of matter so minute that the finest test of the most powerful microscope exceeds it in magnitude, as much as it is itself transcended by the volume of space that forms the universe to man, is before the Infinite equally great with that universe. And such a comparison, though it may assist us somewhat in our ideas, so far as they go, is not even an approximation of the roughest kind to the reality; which may be stated, but cannot be described in words; as it may be believed, but cannot be comprehended by the understanding. We can only say, Before the Omnipresent all finite magnitudes are equal.

How immense to us are the mighty spaces that are lined out by the celestial bodies! What a vast circuit does the orbit of Jupiter, or Uranus, or Saturn trace in the infinite space, and how many thousand, nay millions of times does the area that it circumscribes exceed the greatest dominion that ever owned the sway of the mightiest monarchy on earth! And yet it is not as a span long, it is but

as a speck upon creation, a point covers it, and it is all but nothing before God.

How minute is the mote, that is scarcely individual in the cloud that dances in the sunbeam ! How much more minute that structure that the microscope reveals to us, of which it would take thousands to complete a mass equal to that mote ! And yet a mass myriads of times more minute than the smallest visible, or possibly conceivable speck, may be an universe !

How strange to the finite is the existence of the Infinite, whether it be viewed in magnitude, or in insignificance !

But though, upon consideration, the Omnipresence of God be as clearly forced upon us as a necessary consequence of His existence ; as His existence is forced upon us as a necessary sequence of all other existence, there is another of His attributes which is more easily, more speedily, and more generally and really admitted by the finite intelligence, and that is the temporal infinity of His existence, or His eternity. ‘ Sed nos deum, nisi sempiternum, intelligere quâ possumus ? ’ \*

\* Cicero, *De Naturâ Deorum*, lib. i. cap. 8.

Even where the true nature of God has been least known, and most obscured by the clouds of ignorance, His eternal nature has been almost universally admitted; not always, perhaps, in the perfect form of an infinite existence, yet at least in that of a simple immortality. All who can think, feel that there must have ever been an Existence;—that there can never have been a time when nothing existed. We are so thoroughly bound in our belief to the necessary correlation of cause and effect, that we cannot imagine the creation of any existence without the pre-existence of a Creator. The question then simply lies between the two systems of polytheism and monotheism; or between the ideas of a regular theogony, and the Infinite existence of one God. The former still includes the latter. Let us go back how far soever we will, we have always the first, *i.e.* the eternal, existence from which the others sprang in varied succession.

\**Ἦτοι μὲν πρότιστα Χάος γένητ',*

is the way that Hesiod puts it. The rest, as we have before mentioned, is the result of

imperfect knowledge, and inadequate generalisation.

The supposition of an Infinite Existence is one which precludes the idea of there being any other Infinite Existence than itself. For two or more such existences must either be *independent*, or *related*. If any were independent, no one could be perfect, and they would therefore be antagonistic, and the universe could not exist as it does exist. If related—and if all are perfect, they must be related—they could only co-exist as one Being ; as, in truth, is the case in the blessed Trinity.

The only Infinite Existence is that which has existed from all eternity. Other existences may be *immortal*, as the soul of man is, but they can never be *infinite*, for at no possible future will they ever have existed for ever.

We may consider, then, the great Infinite Existence to be in its eternity one absolutely, though not necessarily personally ; and, as the sole uncreate, unapproachable in the infinity of its duration.

As to the Omnipresent all finite spaces must be equal, and the whole infinity of

creation but a point: so to the Eternal all periods of time must be alike in magnitude, and the history of creation not a series of consecutive events, but the single act of one everlasting energy. 'For a thousand years in Thy sight are but as yesterday when it is past, and as a watch in the night.' Everything that *has existed*, or *is*, or *shall be*, in our phraseology, *is* to the Eternal, whose only description is 'I AM THAT I AM.' There can be to Him no past, and no future. The traveller who plods his weary way upon the plain, passes through town and village and hamlet, by meadow and forest, over brook and river and lake in toilsome succession, while he who views the broad champaign from the mountain sees at one glance every varied feature spread simultaneously before his gaze. Man toils generation after generation, creation follows laboriously upon creation, and universal nature plods like the traveller through a continual succession of events; but infinitely greater in the comparison than the spectator on the mountain-top, the Eternal looks at once, not on a bounded landscape, but on the boundless page of infi-



nite time, with which His existence only is commensurate, and which His intelligence alone can comprehend.

But an Omnipresent and Eternal Existence, in and by which all other individual beings and things exist, must be Absolute in all its qualities or attributes. He who is everywhere, who has ever been, and who ever shall be, must, as an Intelligence, *know* all things. Mind as well as matter is utterly dependent on Him, and the varied regions of thought are as full of His presence, and as open to His gaze, as the unbounded domain of the material universe. His omniscience cannot be denied in theory ; pity 'tis that it is so generally overlooked in practice. He knows the unborn thought, the very suggestion of which is not yet in existence. His perfect nature, seeing all things in one absolute present, and knowing neither past nor future in relation to itself, views what we should call the results of prophecy, as a simple fact in the one grand act of His being. Man may conceal his purpose from his neighbour ; the immature design may never ripen into action ; and the one breast that nursed the nascent project

may pass away from earth, the sole depositary of its secret existence, but ever from all time, ere the worlds were created, that secret was known, it is known now, and will be known for ever by Him to whom, in very truth, 'all hearts are open, and from whom no secrets are hid.' The mysterious and occult causes that seem likely, even in ordinary matters of terrestrial change, to baffle the deepest researches of the human intellect for ever, and of whose nature we have only gained glimpses more and more advanced, but far from clear or certain, by the laborious struggles of our mightiest powers since the formation of our race, are to Him the methods by which the working of His eternal purpose are carried out, the instruments of His own Creation; simpler before His Infinite knowledge than is the most ordinary axiom before the most philosophic finite mind that has ever existed. We find in our pursuit after truth, or knowledge, things more or less hard to understand, facts more or less difficult to explain; but to the Omniscient all is equally and perfectly simple. We may have a limited acquaint-

ance with the events that occur in our own country, a yet more perfect knowledge of what is going on in our own neighbourhood, and still more exact ideas of what is passing in our own house, in our own presence ; but the fullest of these is far from being complete, while He knows every thought of all mind, every movement of all matter that occurs throughout the Infinity of His dominions.

Again, as it is only by and through Him that all things exist, as nothing that we can conceive occurs without the immediate exercise of His power, that power must be unlimited ; unlimited not only in its magnitude, *i.e.* in what *we* consider the higher works of Creation, but also in its minuteness of interference. Using the term special in different senses, we may equally affirm that there is no such thing as a *special* Providence, and that every occurrence is a special Providence. Nothing that can happen can be more immediately the act of God, than everything that does happen, and a miracle only differs from what we call the 'Course of Nature,' by its being contrary to *our*

experience : there is not, there cannot be, a greater or more direct exertion of Divine power in the raising of the dead to life, or in rolling the waters of the Red Sea ‘together as an heap,’ than there is in the ever-recurring phenomenon of the growth of a blade of grass, or in the unnoticed beat of one human heart. As to the Eternal there is no tense but the present, so to the Almighty there is no mood but the indicative. Nothing can qualify His power of action, and no inability to perform can ever frustrate His purpose, or render His design incomplete. When the tempest racks in the sky, and the forest is uprooted ; when the vexed waters of the ocean roll in crested mountains, and their thunder, as they leap upon the cliffs, mixes wildly with the howling of the storm-blast, and no ship lives upon the sea ; or when the stillness of the summer night is broken by a sullen, rumbling sound, and the earth quakes, and the mountain tops are shattered, and the city is swallowed up, and the ocean forsakes its bed, and sweeps away at once every trace of former existence and of recent ruin ; the mind of man is lifted up,

and he regards with awe and reverence that Power that *then* seems to him able to annihilate the world. But if man thought aright, if he considered correctly the might of Omnipotence, he would know that the annihilation of all the worlds of Infinity presents to it no more inherent difficulty than what *he* considers the easiest of its acts.

Difficulty and ease are terms which apply only to the finite; to the Almighty there can be no difficulty, and therefore there can be no effort.

The Absolute holiness of God, consisting in His perfect goodness, mercy, justice, and truth, is properly to be considered in every complete treatise on the Infinite,\* and is deducible from the consideration of Nature; but the investigation is so intimately connected at every turn with the higher Theology of Revelation, and every attribute is so much more amply explained and illustrated by that Theology, that we shall not here enter on the subject.

\* The term *infinite* cannot be properly, though it is popularly, applied to moral attributes. They can only be Absolute or perfect. See Locke, *Essay on the Hum. Under. B. ii. cap. 17, § 1.*

We have now considered the Infinite in Material Existence and the Infinite in Spiritual Existence. The Deductive method would have been to commence with the latter, and to argue from the Creator to the created. We have preferred the Inductive, as the natural method, and, in fact, the only real and practical method, the Deductive being really founded on the Inductive, and being simply an inversion of it. In the first part of the subject we had ample freedom to consider the question as fully as we chose, without fear of encroaching on any province but our own, but in the second we have had to guard against entering into views that properly belong to the higher Theology of Revelation. We have, therefore, tried to avoid, as much as possible, even the common ground where the two Theologies mingle, and where it is difficult thoroughly to explore the one without trespassing upon the other.

Above all, we have endeavoured to render the subject as easy as possible, by abstaining from the use of that capricious, and too often meaningless and unintelligible terminology,

with which it is now so customary to render the study of philosophy incomprehensible and obscure, without increasing its depth, or adding to its discoveries; and we have striven to free it from the tedium caused by extending what ought to be said in a few words into lengthy and diluted paragraphs.

## ON ARABIC PERIPATETICISM.



*Averroès et l'Averroïsme, Essai Historique,*  
*par ERNEST RENAN, Membre de l'Institut.*  
Paris: Michel Lévy Frères.

IT is singular in tracing the history of the varieties of philosophical doctrine which have come down to us through centuries, to observe how they have moved among the peoples of the world; disappearing here, and re-appearing there; at one time blazing in the East, at another glimmering in the West: perhaps owing their origin to the Bráhmans of Hindustán, and their development to the early sages of Greece, or the late philosophers of Alexandria, and then, after a long oblivion, springing to new life in the æsthetic teas of a German coterie, or in the always controversial philosophisings of a Scottish University. In no instance is this flitting Will-of-the-wispish



career of opinion more remarkable than in that of Pantheism.

The τὸ ὕγρον of Thales, which was the essence of all things, may or may not, in so far as we know, have been considered by him as identical with God, or as Divine in itself;—indeed some of the sayings which are attributed to him would lead us to suppose that he believed in the personality of the Deity;—but the τὸ ἄπειρον of Anaximander, the ἀήρ or αἰθήρ of Anaximenes, and, above all, the νοῦς of Anaxagoras, seem to have been the bases of Pantheistic systems of philosophy. Still we know so little of the details of these ancient systems—details that were matters of dispute among their almost immediate followers—and we find in what we do know, so many inconsistencies and contradictions, that we cannot with certainty affirm that they were either Pantheistic or the reverse. The subsequent schools which had their source in this old Ionic fountain of wisdom—the Socratic, the Academics, and the Peripatetic—clearly denied the doctrine, which is to be found, in Greek Philosophy, not among them, but in the Eleatic, which was descended from that other

great source—the Italic school. Yet, strange to say, it was through the writings of Aristotle that it was again to come to life in the world, when ten centuries had rolled over them, and then not from the imaginings of speculative theologians, but from the philosophizings of the Unitarian followers of El-Islám, from whom again it was to pass, some eight centuries later, to the leaders and luminaries of the Christian Church.

When Platonism gave way to Eclecticism in Alexandria, and the writings of Aristotle came to be studied by the Philosophers of that school, and still more when those writings had asserted their own power, and in turn Eclecticism had to give way before Peripateticism, the world began to be filled with commentaries and glosses upon them, and all its philosophy was at work trying to explain their difficulties, or to supply the deficiencies that, tradition says, the too careful heirs of Neleus had so miserably occasioned. Then, also, several translations of them into Syriac were made for the use of learned men, principally Jews and Christians, in the East. Soon after these translations were made, the Arabs,

who had over-run Arabia, Persia, Egypt, and Syria, and who from the poverty and sordidness of the desert had changed to the riches and luxury of Baghdád and El Baṣrah, revolted from the sway of the descendants of 'Alee, and Abu-l-'Abbas, of the family of El-'Abbas the uncle of Moḥammad, sat on the throne of the Khaleefehs, and began the line of the 'Abbasees, who were to give thirty-five Emeers to the Faithful, and to reign for upwards of five centuries the most powerful and the most enlightened monarchs of their time. The successor of Abu-l-'Abbas, Aboo Jaafar El-Manṣoor, encouraged learning in every form, and was the first of the three great Khaleefehs of his race. The second was his grandson, Hároon-Er-Rasheed, the third of the line after him, and world-renowned from the frequent mention made of him in the Thousand and One Nights. The third was El-Mamoon, the son of Er-Rasheed, and the second Khaleefeh after him. It was under this prince, who was called 'the learned,' that science and philosophy advanced with the most rapid strides among the Moḥammadans, and that numerous philosophical

and scientific works were translated into Arabic from the Syriac; amongst others those of Galen and Aristotle, and the Almagest of Ptolemy. We may mention here, once for all, that at no period do the Saracens seem to have had a direct acquaintance with the Greek language or literature, or to have known anything definite as to its schools of philosophy, or their professors, with the exception of Aristotle;\* though they were

\* Some of the works of Plato were translated into Arabic, but his Philosophy was never known to them as a system. Even the translations of Aristotle which they had, were, in addition to their inaccuracy, frequently filled with interpolations—running commentaries inserted in and not in any way distinguished from the text—which materially altered his meaning, and gave an erroneous idea of his views. The Saracens commented frequently in the same way, so when the works of Aristotle were again translated into Hebrew and then into Latin, we can form a fair guess of the transmutations they had undergone ere they reached the European scholastics. Yet till the revival of letters such was the Aristotle of Western Europe. What the poor man suffered altogether may be summed up thus: he was edited, *i.e.* his works were patched, and some of them recast by Eudemus, Nicomachus, &c.; then, if all stories be true, he was buried by the heirs of Neleus and brought to life again in an impaired condition, when he was mended, first by Apellicon at Athens, and then by Tyrannion at Rome—yet all this time he was himself in

familiar with the writings of Philoponus, and others of the Alexandrian school.

It is difficult now to realise the action on the Eastern mind of what was still in those days the most able exposition of metaphysical and physical philosophy that had appeared in the world,—to estimate duly the effect of the acute investigations of the Greek on the equally subtle but shallower intellect of the Oriental. The civilisation of Baghdád was not that of Athens; it had grown with no natural, lengthened growth: springing up in a day like a mushroom, like it, it had no root in the soil which it so closely overshadowed, and, destitute of fibre and coherence, broke to the slightest pressure. The other, like the pine on Hymettus, was the growth of ages, and bore its spreading top, on

the main. But when he got to Alexandria he was commented on and interpolated, and translated into Syriac, with more comments and interpolations, and then into Arabic, after which he suffered severely—of course from his friends. Then he was translated into barbarous Hebrew, and retranslated into barbarous Latin, and in this deplorable condition he was cast among the barbarians for their edification, and *they* racked and twisted him without mercy.

the strong shaft of a stately and graceful stem, high above the earth, where its wide-extended roots were spread far abroad around its base, and rendered it secure alike from the earthquake and the tempest. In the Moḥammadan empire the magnificence of the Monarch was mingled, even in the palace, with the barbarism of the Bedawee; the state of the Khaleefeh was veined with the simplicity of the Sheykh; and, though the native dignity of the Arab saved him from the excesses of the Goth, yet, unsupported by education, and wanting the natural nurture of gradual progress from generation to generation, and the permanent strength which it alone can give, it was too insufficient a framework on which to build a refinement and a polish equal to that of the fellow-citizens of Pericles.

The Greek Philosophy, too, had been fostered under very different conditions not only of civilisation, but of thought, feeling, and belief. The Greek was free in his religious creed and opinions. If he paid some show of respect to the established deities of his country—in which there was no established

religion—he might believe or even teach any system of theology that he chose:—it was private vengeance not public law that condemned Socrates. But the Arab was bound by the strictest of all creeds: ‘La iláha illa-lláh, Moḥammad resool alláh,’ were the two simple but comprehensive professions of his faith, and whatever indicated a deviation from their strict letter and interpretation was heretical, blasphemous, and abhorrent. Besides, unlike the Greek, he was provided with an authoritative guide on religion—the book communicated by God to his Prophet,—which, while it gave him matter of study in itself, forbade his application to the arts and sciences of the unbelieving world, and directed his energies to one sole end—conquest for the spread of the Faith. And, consequently, as soon as that conquest spread beyond the confines of Arabia, in the early days of ‘Omar, it was signalised by an act of barbarism rarely equalled in the history of mankind, and of which the sad consequences have been and will be felt by the student of philosophy and thought throughout the ages,—the

burning of the Alexandrian Library.\* The Muslim had no need to speculate on spiritual existences, on religious doctrine, or on moral duty, for from God to man the host of Archangels, Angels, Sheytáns, and Jinn in all their varieties, were laid down with a precision and distinctness that admitted neither speculation nor scepticism. His prayers, and his other religious services, were specified with the most minute and exact attention to detail, and his duties to his fellow-men were clearly and fully defined. Of what use to him were all the schools of Greek philosophy, all the speculations of refined yet untrammelled thought? It was like offering to the distorted foot of a Chinese beauty the mocassin that is adapted to the free and elastic step of the Mohican or the Iroquois; and, in truth, no effect was ever produced by philosophy on what was the purely Arab element of El-Islám.

The 'Abbasees, though of Arab origin, were domiciled in Persia, and Persian blood flowed

\* The burning of the Library of Apollo Palatinus by order of Gregory the Great, and of 80,000 volumes of Arabic literature by Cardinal Ximenes at Granada, are instances of equal bigotry on the other side of the question.



in their veins. Hároon Er-Rasheed had his son El-Mamoon brought up among the Barmeekees, who were neither more nor less than Magians, or Fire-worshippers, that gave external though unwilling submission to the religion imposed on them by their new masters. The first introducers of Feelsafet\* to the followers of the Prophet were, as we have already mentioned, Syrians, many of them Christians or Jews, and all, or nearly all, of them combining in their acquirements medicine with philosophy,—a combination that almost invariably reappears till the very end of the Arabic period. Their pupils, who were the first philosophers of the Arabian School, did not spring from Arab stock: El-Kendee (Alkandy), a native of El-Ḳoofeh, and teaching in the school of El-Başrah, was a Persian; Aboo-Naşr El-Fárábee (Alfarabi) came from Turkestán; Aboo-Bekr El-Manşoor (Abubacer) was a Persian; Ibn-Seena (Avicenna) came from Bokhará; El-Ghazálee (Algazel)—the Mansel of his day—was but a step nearer, a native of Khurásán; while Ibn-

\* Feelsafet=The Greek Philosophy=Peripateticism.

Bájeh (Avempace), Ibn-Zohr (Avenzoar), Aboo-Bekr Ibn-Tofaeel (Tofail), and Ibn-Roshd (Averroes) were Moors of Spain, who flourished as philosophers under the Magh-rabee Khaleefehs of the West. But though there must have existed among those followers of El-Islám who were not of Arab blood a strong under-current of unbelief in the religion which had been imposed upon them by the armies of the Prophet, and though we even allow that this feeling had found sympathy with the Commanders of the Faithful, it alone would be insufficient to account altogether for the spread and popularity of a philosophy so inimical to the doctrines of the *Kur-án*; and, accordingly, we find that there were two other aids to its introduction and its progress.

One lay in the religious disputes on these very doctrines, which had already commenced when scarcely a hundred years had elapsed since the Hijrah. These discussions, which had split El-Islám into numerous sects, had created a field of religious controversy called El-Kalám, in which the leaders of the various parties exercised their powers. It was already

in existence when Peripateticism was introduced, and the Feelsafet was at once laid hold of by the disputants, to aid them in their controversies by its powerful and subtle dialectic, and to support their opinions by its metaphysical and physical doctrines. In later times when philosophy had all but become the master where at first it was but the slave, and threatened to destroy the very existence of the religion which it had been called in to illumine and to support, El-Kalám was no longer open to its professors, but was confined to the defence of orthodoxy against its heretical teachings, and the theologians became the distinct and avowed enemies of the philosophers. Unquestionably, however, for a length of time Aristotle was the expositor of Moḥammad, and his works divided its honours with the *Ḳur-án*, as they afterwards did with the Bible.

The other cause that favoured the introduction of Greek philosophy among the Moḥammadans was, that it did not appear among them at first by itself as an independent science, but was insinuated as the handmaid of other studies not so contradictory to their

religion. It was almost always conjoined, both in its introducers and in their followers, with medicine and mathematics, and what were in those days their better halves, magic and astrology. The Arab and the Persian were alike essentially romantic in their nature. The little prose that they studied besides the *Ḳur-án* was romance, while their favourite literature was poetry—the fragmentary, parallelistic poetry of the Oriental, always sentimental, frequently amatory, but more frequently religious. The old religion of the Persians ruled by and gave its name to magic; the Arab tribes acknowledged its influence in the rude superstitions that formed their religion before Moḥammad arose; and even he had yielded to its power, or rather, he was too naturally and too thoroughly a believer in it himself to think of shaking it off, or to do more in his new religion than modify and remodel it. Accordingly we find that the spiritual hosts whom we have already mentioned, were held to be powerful agents that the magician could control; especially the *Jinn*, who as they were good or bad, faithful or rebellious to God and the

Prophet, were employed for purposes of good or evil—the former was lawful magic, the latter unlawful; they could also inform men of hidden mysteries in things and places and times, and give them talismans of power to avoid evil and procure good. To this spiritual magic they added astrology, geomancy, natural magic, and above all the supreme branch of the art which was wrought by pronouncing that ‘most high name of God,’ which was only revealed to a few, and which was inscribed on the wondrous seal that God gave to Suleymán Ibn-Dáood. As these were originally but the results of the romantic temperament of the people by and over whom Moḥammadan conquest first spread, the belief in them was universal and confirmed; and even to this day, to the Muslim, the angels Hárout and Mároot hang, head downwards, bound in iron fetters, in the pit by the rock at Bábil, to teach their unhallowed lore to those who in spite of warning will be tempted. Among such a people the physician, who mingled the supernatural with the natural, was at once welcome and powerful; and *he* was the philosopher; to him was it

mainly owing that the schools in which Aristotle was taught flourished for three centuries among the Saracens, and spread from Bokhará to Cordova and Seville.

We have said that the Peripatetic Philosophy of the Alexandrian School sprang from the Eclecticism that superseded Platonism. Eclecticism is necessarily but a transition stage in the progress of philosophical thought. It arises from the felt deficiency of the previous system when it has been thoroughly worked by successive minds, and from the necessity of supplementing its wants from other sources ; as well as from the love of change, which, engendered by the incapability of the human mind to remain for any lengthened period in the same line of thought, seems to be a wise provision for stimulating it to research, and maintaining its vigour and its progress. But from its very nature Eclecticism cannot exist as a uniform School among its followers, for whenever it produces a School it ceases to be Eclecticism. Thus when the Alexandrian Eclectics ultimately gave a preponderance to the Peripatetic Philosophy they ceased to be Eclectics, and formed a

school of later Peripatetics, in which the doctrines of Aristotle were mixed up with and supplemented by much that was drawn from his predecessors, and also from the philosophy of Pythagoras and the sects who descended from him. Among those adulterations of the Aristotelian philosophy was a Pantheism which may have come partly from the *νοῦς* of Anaxagoras, but which more probably had its real source among the Bráhmans of India, or the Magi of Persia, and from thence made its way through the priests of Egypt to Pythagoras and his followers, till it was fully developed in the Eleatic School of Xenophanes and Parmenides, from which it was taken by the Alexandrian, who, when he became a Peripatetic, called in as its parent Anaxagoras—the lineal ancestor of Aristotle, in philosophy. This Pantheism was almost universally adopted by the Infidel and Jewish members of the school, and also, to a great extent, by the Christians, especially by such as had been originally educated as Pagans; and in the early ages fierce disputes arose between them and their opponents, the Latin Fathers, who carried to the opposite extreme what M.

Renan calls their 'réalisme grossier en psychologie, et leur façon tranchée d'opposer le corps et l'âme comme deux substances accolées.' This tinged the Syriac translation of Aristotle's works, while it deeply coloured the Commentaries on them, and was thus communicated to the early Arabic School as part of their substance. To the Oriental portion of that school, which was also the earlier, such a doctrine was most natural, as it was common to the higher forms of Eastern Philosophy, from which indeed it had originally sprung; and Yaaqoob El-Kendee, Aboo-Naşr, Aboo-Bekr, and Ibn-Seena firmly established it as an essential element in their Peripateticism. From thence it spread westward, and was maintained by their Occidental successors, Ibn-Bájuh, Ibn-Zohr, Ibn-Tofaeel, and Ibn-Roshd.

The entire spiritual theory of the Arabic Philosophy, as developed by Ibn-Roshd, was the following;—From God, the Supreme Existence, who was self-existent and in eternal repose, emanated the first great Intelligence, corresponding to the *λόγος* of the Neo-Platonists, but very different from it in its attributes and functions. This Intelligence is the Heaven,



which exists solely by uninterrupted circular motion.\* The motive power inherent in it springs from its desire of union with the Supreme Being, and is exactly adapted to the mass to be moved, so that any addition to the latter would produce a cessation of the motion, and the corruption and destruction of the Heaven would ensue, it being impossible for God (i.e. inconsistent with his perfect repose) to renew the motion, or restore the first Intelligence to life. From this first Intelligence emanates a lower order of Intelligences, which fulfil their part in the polity of the universe; and again from them another and inferior, and so on, until lowest of all is that emanation which is the active Intelligence of the human race. These orders of Intelligences are nine in number, corresponding to the spheres of the seven planets, the fixed stars, and the diurnal movement. Every order has perfect knowledge of what is known to all the orders beneath it, but not of what is known by those above it: therefore, the first Intelligence is

\* Speaking generally, we may say that this is simply a modification of the doctrine of Aristotle as given in his *LL. de Cælo*.

Omniscient. The active Human Intelligence may be purified until ultimately it is re-absorbed by the Supreme Being, being equal to him in knowledge: such purification may take place during life, as in the case of the Prophets, who had free communion with God. The active Human Intelligence is in itself immortal, as part of the first Intelligence, which is an uncreate emanation from God, and consequently all its parts are immortal; but they are only immortal as parts of the immortal whole, and not as separate individual existences. The immortality of man is not the immortality of each individual, but the immortality of the race, which is, as a race, eternal.\* The uncreate active Intelligence loses its individuality on the death of the corruptible passive Intelligence with which it is united in each individual, and that individual ceases to exist. We may here ask, how is it then with the Prophets, who while yet individual attained to union with the Supreme Being? Did the earlier and Oriental School hold that the individuality is lost on absorp-

\* Identical with this is the modern doctrine of Strauss and other followers of Hegel.

tion, or did they follow the more ancient Eastern doctrine of Zoroaster that it is not, a doctrine which was still held in their time by the Persian Sophees? Judging from the *Teháfet* of El-Ghazálee we may presume that they repudiated not only the resurrection of the body, but the immortality of man as an individual; certainly that was the opinion of Ibn-Roshd and the Occidental School, and probably the favour shown to the Prophets was only a concession to the popular belief.

Unquestionably this doctrine of the dualistic nature of the human soul has some basis to rest on, or it could not have been so widely received by philosophers of different ages and countries. To find its source we must look at the nature of things as presented to us in this world.

The bulk of the matter of which we have any knowledge is destitute of life; it bears a form, but it is inert; it is neither sentient nor spontaneously active. Still a considerable portion of it is organised, and lives. Now material life is the concomitant of active organisation; disease, of its impairment; death, of its destruction. In

matter, organisation coupled with activity is life; when the organisation is so interfered with that the activity ceases, life is destroyed; the organisation may remain in form, but it is no longer active organisation; it is no longer the same; change commenced at the instant that death took place. This material life, however, is not mind, it does not necessitate sensation or volition, it is the life of the vegetable as well as of the animal kingdom. But organisation differs in degree, and when we ascend in the scale we find organised beings that are possessed of a certain degree of intellect, of sensation and volition; at first the mere rudiments of each, and then, in an almost regular progression, we perceive their more perfect development till they culminate in Man, the most generally perfect organisation that we are acquainted with. At the same time there begins to manifest itself in the intellect a higher power of knowing than the mere perception of a sensation, and a higher intelligence than is necessary for the mere manifestation of a feeble will; an intelligence which is necessary to guide the actions and to enable the living being to

supply its wants, and which is more or less perfect according to the place which the animal occupies in terrestrial creation. The intellect as it advances begins to manifest the power of continuous thought; memory, association, and judgment appear; while at even an earlier stage are seen the emotions, the passions, and the habits which are the springs of action. That inborn impulse to perform certain acts at certain times accompanied with the knowledge of how to perform them, that we term Instinct, which is so pre-eminent in some of the lower animals, and which exists to some extent in all, even in man, wanes as the independent powers of mind and principles of action are more fully developed, and Reason is supplied to take its place. In the highest of the brute intelligences there is a capacity of *learning* to a certain extent the distinction between right and wrong, but not any original Moral Sense whereby they could acquire a knowledge of that distinction without teaching, or know it other than it is taught.

The human intelligence, however, not only stands originally in the scale far beyond any

intellectual power of the brute intelligences, but it is endowed with a capability of progress inherent in itself, which enables the individual to increase in untaught knowledge, and is the means whereby the race advances in learning from age to age. Besides the Moral Sense in man is not the mere creature of education, but an endowment of his nature, an original faculty of his mind, which lays upon his shoulders not an accidental and arbitrary responsibility for his actions, but a necessary and determinate law of duty, a fixed and unalterable standard of innocence or guilt. And such is the constitution of his intelligence that this Moral Sense, coupled with the perfection of his mental endowments, necessarily leads him to the knowledge of the existence of a God, whose creature he is, whom it is his duty to love, a duty which he performs when he does right, which he infringes when he does wrong.

This capability of progress in knowledge, this innate Moral Sense, and this necessary resulting belief in God and in duty to Him—or natural religion—are specific differences between the human intelligence and the

intelligence of the brute ; differences not of degree, but of kind. Sensation and volition, the appetites, the passions, the emotions, with the pleasure and the pain which accompany them, the mere mental powers of memory, of association, and of judgement, are not distinctive of man ; there is a part of his intelligence which in kind is common to the brute, and there is another part which is, among creatures in this world, peculiarly his own. Let us now confound material life with intelligence, and we have man with a part of his intelligence common to all active organisation, and a part proper to himself.

Aristotle in his treatise ‘*De Animâ*’ thus confounds the material life with the intelligence, and calls both together  $\psi\upsilon\chi\eta$ . Accordingly every ζῶον, or individual active organisation—every living thing in the vegetable as well as in the animal kingdom—has a  $\psi\upsilon\chi\eta$ . Then comes the necessary distinction ; every  $\psi\upsilon\chi\eta$  has not equal δυνάμεις—powers or faculties. He divides these δυνάμεις into five kinds or classes ; viz. : 1st ἑρπετική—the faculty of receiving nourishment common to all living organisations ; 2nd αἰσθητική—the

faculty of sensation, which must include perception; 3rd κινητική—the faculty of motion; 4th ὀρεκτική—the faculty of impulse or desire; the source of volition,\* which is the result of impulse or desire, and necessary to the κινητική; 5th διανοητική—the faculty of intelligence. The second, third and fourth he accorded to animals, but the fifth was exclusively the property of man. In other words, animals have all Life and Instinct, man has Reason in addition.

Again Aristotle † calls the one part of the human intelligence the Passive intelligence, and the other the Active intelligence. The passage is vague, and, as M. Renan observes, it may be now-a-days resolved according to the ideas of modern philosophy into nothing more than a distinction between sensation and perception; such a resolution, however, he justly observes, is not fair, the opinions of the ancient Philosophers must be viewed by their own light, not coloured by rays that have passed through a medium whose

\* Aristotle's psychological system is defective under the head of Will.

† *De Animâ*, III. c. v. § 1; cf. *Eth. Nic.* I. c. xiii. § 6.



future existence they could not have anticipated.\* It is this passage which Ibn-Roshd—who was an admirer of the treatise ‘*De Animâ,*’ and not only wrote his three commentaries on it, but certainly one other work in the form of question and answer, and probably two more—laid hold, and took as his text for the exposition of his dualistic theory of the soul, combining it with the Pantheism which he found in other sources.

\* Were this wise rule more generally attended to we should not so often meet with those attempts to work out systems of thought from the mere fragments that exist of the authentic opinions of the early Greek Philosophers, by ascribing to them such gratuitous nonsense as the following exposition of the Philosophy of Pythagoras : ‘ Thus gradually we suppose the idea of limitation, which Pythagoras had acquired from Geometry, and which had been brought out in his mind in opposition to the notion of an all-comprehending infinite or indefinite ; and the idea of beginning or succession which he had acquired from Arithmetic, and which had come out in his mind in opposition to the notion of a mere external ground of things, fused and softened as they both were by the sense of a music dwelling deep in the heart of the world, may have become associated with practical thoughts respecting the nature of the human soul, and the bonds by which souls are united with each other, and finally with still more awful contemplations respecting the nature of a God.’—*Encyc. Metrop.*, Art. ‘*Moral and Metaphysical Philosophy.*’

Tatian, who philosophised 700 years before El-Kendee, held the doctrine of the human intelligence's consisting of a rational mind and an animal soul. The Alexandrian Philosophers called them the ψυχὴ and the νοῦς ; while the Cabbalists divided the human soul into four, of which we may give the Nephesh and the Ruach to the Animal part, and the Neshamah (which was the breath of God or man only) and the Fechidah to the Rational part.

Let us pause here for an instant, and enquire to what extent the opinions of Ibn-Roshd were Pantheistic. What is Pantheism? It is now-a-days a familiar word, though seldom used, and certainly never in regard to the Saracenic Philosophy, in its full and legitimate meaning. *That* clearly is, that the τὸ πᾶν—the Universe material and spiritual—is God; and, conversely, that God is the Universe. It is the enunciation of a perfect equation between God and all existing things. In this sense it cannot be applied to the early Eastern Philosophy, for the doctrine of Emanation does not identify God with matter, but only with all intelligence—with all spirit down to

the soul of man, but not lower, unless there be held at the same time a complete doctrine of metempsychosis, in which case God is identified with all mind. As we have before mentioned, we can say little about the belief in such matters of the early Greek Philosophers. Pythagoras was, it is said, a Pantheist in the strict sense of the word, but it is much more probable that he was only one in the restricted sense in which the name can be applied to the Eastern Philosophers. His immediate followers went no further; but in the Eleatic School matters did not stop there, for at length in the philosophy of Leucippus and Democritus there is no indication of the existence of a Deity independent of matter. The Arabian Peripatetics were Pantheist only to the extent of the Magians and Sophees; and the same may be said of their followers in the Scholastic ages; in fact we find no real Pantheism from Democritus to Spinoza.

The Dualistic system of Plato—the doctrine of the eternal and the immutable difference between mind and matter—was materially altered by the Alexandrian School, who considered matter to be an emanation from God,

which had existed from all eternity, and was, therefore, uncreate. Though an emanation, however, it was not part of the Spiritual God—as were the souls of the subordinate intelligences—originally and eternally sprung from Him ; it was not part of His existence, but the complement of it, the correlative of Deity in the universe. In this the Saracen Philosophers agreed with them, while as a corollary to their general view of the subject they totally denied the possibility of Creation.

This doctrine of the Unity of the Active Intelligence, and of its being an emanation from the Deity, is not, then, Pantheism properly so called, but Monopsychism, the doctrine of the Oneness—the fundamental unity—of all spirit.

Such a system was entirely repugnant to the doctrine of the Kur-án, and to the teaching of all the sects of El-Islám. The theologians held that the universe was created by God, and distinct from Him, except in so far as that it exists by His act, and that without the exercise of His active power nothing could either have a beginning or a continuance of being. The impossibility of creation was thus opposed by the doctrine of its abso-

lute necessity, not as an isolated but as a continuous act. As to the nature of God, there was in El-Kalám every shade of belief, from that which denied Him the possession of attributes—as they could only belong properly to created beings,—and regarded Him as a purely abstract existence, to the most complete anthropomorphism, that viewed Him as the type of mankind, in the likeness of a man, having a fixed habitation, and a definite form. The immortality of the soul as individual was a fundamental dogma of Moḥammadanism, and so was the resurrection of the body. Even after death, in the interval before Isráfeel sounds the trumpet, the soul and body are not perfectly separated, and Munkar and Nekeer examine the dead, and torment the wicked in their graves.

Consequently the Orthodox were always opposed to the Philosophers, and the opposition became more violent and embittered when they were enabled to combat the opinions of the latter with the aid of their own Dialectic. In the strife that ensued, although the Philosophers sheltered themselves as much as possible from individual responsibility by stating their opinions as comments on the

writings of Aristotle, and not as their own original views of the question, the Theologians had, in the end, so complete a victory that their opponents finally disappeared for ever from El-Islám. But the struggle lasted good three hundred years, and is the more remarkable because the heaviest blow that was dealt to the Philosophers in the contest was struck too injudiciously and too soon, and produced a reaction that made the Arabic School better known and more renowned than otherwise it would ever have been.

El-Ghazálee of Toos—a city of Khurásán, of which the ruins remain not far from the modern city of Mushed or Meshed—was, among the Arabs, the champion of uncompromising Belief; of Faith against Reason; or in other words, of the teaching of the Church against freedom of thought—as Huet and Mansel have been in later and different times. He attacked the doctrines of Peripateticism, more especially as propounded by Ibn-Seena, in a work called ‘Teháfet El-Filásafeh,’\* or ‘The Destruction of the Philosophers.’ In it he

\* Herr Gosche, in his monograph “*Ueber Ghazzâlis Leben und Werke*,” points *Tehafet el-Filásafeh* to be read, in our orthography, *Tehafot el-Felásafeh*.

argues, that the absolute want of confidence that we must have in the conclusions of our reason leaves us no resource but to ground our opinion on Faith, on a blind, unquestioning acceptance of the doctrines of the *Ḳur-án*; an argument which only removes the difficulty one step further off, without altering it either in kind or degree, for it must still be left to Reason to investigate the evidences of the Divine origin of the *dicta* to which Faith subscribes. This attack rallied the Philosophers; and though the Oriental School may be said to have ended with Ibn-Seena, and practically to be now no more, the Occidental rose up to meet the blow, and Ibn-Bájeh, Ibn-Tofaeel, Ibn-Zohr, and Ibn-Roshd displayed in their writings a method and a definiteness unknown to their predecessors. Ibn-Roshd was the most energetic and successful opponent of El-Ghazálee, and his 'Teháfet El-Teháfet' or 'Destruction of Destructions' was an able reply to the 'Teháfet El-Filásafeh.' Ibn-Roshd had, however, to labour under a more than ordinary amount of intolerant popular prejudice. Except in the palmy days of the early 'Abbasee Khaleefehs, the philosophers

had always been obliged to veil the individuality of their opinions in the form of commentaries, and frequently to contradict, as of themselves, the doctrines which they had advanced as Aristotle's; and now, in the Western Empire, when the Almohades had obtained the sovereignty of El-Maghrib, the tolerance that once existed in the Moorish dominions in Spain was at an end; and although Abd-El-Mamoon, Yoossuf, and Yaaqoob El-Manşoor seem to have been in the main liberal-minded men, they were always at the mercy, and therefore at the command, of the Theologians. Thus Ibn-Roshd was constrained in his reply to El-Ghazálee's work\* to insert passages in which he declared it the duty of the Philosopher to uphold the established religion, and says that 'the Epicurean' (i. e. the infidel) who tries at once to overturn virtue and religion is worthy of death. But even this did not avert from him the persecution which he foresaw and deprecated, and in his old age, under El-Mamoon, he met with

\* El-Ghazálee died in A.D. 1111, and Ibn-Roshd was born according to the most authentic account in A.D. 1126.



that disgrace of which the story is so well known.

With Ibn-Roshd the Arabic School of Philosophy comes to an end. His pupils are but known by name, and his more immediate and most renowned followers were Jews. He was at once a lawyer, a physician, and a philosopher, which implies that he was also an astronomer, and a theologian; whilst two works of his on Grammar, that have not come down to us, are mentioned in the ancient catalogues of his writings. In Medicine his fame was great, but not equal to that of the two Ibn-Zohrs, uncle and nephew,\* and it was as a lawyer that he was most renowned among his contemporaries, while it was his philosophical abilities that in after times made the barbaric corruption of his name—Averroes—famous throughout the civilised world. In his voluminous triple Commentaries on Aristotle—for whom his unbounded veneration has become proverbial—he perfected

\* The uncle and nephew were both called Aboo-Bekr Ibn-Zohr. The Avenzoar of the Scholastics was Aboo-Merwán Ibn-Zohr of the same family, and the intimate friend of Ibn-Roshd.

that system of Monopsychism, or restricted Pantheism, which we have examined, and which, first started in connection with Peripateticism in Alexandria, had been adopted and expanded by the earlier philosophers of his school. He helped to the best of his ability to father it upon Aristotle, and in turn a still more reprehensible doctrine was fathered upon him—in the 14th century he was the reputed author of the assertion, that the three religions of the world were founded by three impostors, Moses, Jesus and Moḥammad!

Moses Ben-Maïmon, commonly called Maïmonides, a Jew of Cordova, cotemporary with Ibn-Roshd, being born only a few years after him, is generally supposed to have been one of his pupils. There are some doubts as to this, however, which may be well-founded, though the letter which Maïmonides wrote from Cairo to his pupil Joseph Ben-Juda in 1191—Ibn-Roshd died in 1198—and which is quoted by M. Renan, can scarcely be considered in itself sufficient evidence on the other side. At any rate the philosophy of Maïmonides was identical with that of Ibn-Roshd, except in one point,

where it is to a certain extent self-contradictory, attributing a *quasimodo* separate individual existence to the Soul, and yet holding the doctrine of one Universal Intelligence, and denying the possibility of numerical multiplicity to incorporeal essences. It was to Maimonides that the position of Ibn-Roshd as the chief of the Arabian Peripatetics was principally due, for he upheld him as the great expositor of the Stageirite, and the school which sprang from the Jew continued and increased the reverence paid to the Saracen, until he was called 'the Soul and Intelligence of Aristotle.'

The religious intolerance of the Almohades forced the Jews of Andalusia northwards. Toledo, Barcelona, Narbonne, Montpellier, Lunel, Arles, Marseilles, became their western abodes, where they dwelt the perpetuators of the philosophy, which had been expelled from El-Islám. Divorced from daily contact with the Arabic, they gradually ceased to be familiar with it, and consequently they translated the works of Aristotle and of their favourite commentators on him into Hebrew—a Hebrew that too often gave an erroneous

idea of the originals, from the inadequacy of that language to express the meaning of the terms of philosophy, and from the ignorance of the translators, who frequently inserted for the Arabic the Hebrew words which correspond in radicals, but which frequently differ much from the other in signification.

As early as 1150, or about the middle-age of Ibn-Roshd, Jews at Toledo were employed by Archbishop Raymond to make translations into Latin of the writings of Arab philosophers, and laboured at the works of El-Kendee, El-Fárabee, and Ibn-Seena. Early in the 13th century Michael Scot studied there, and when he afterwards went to 'Padua far beyond the sea,' he took with him the Arab philosophy, and introduced the translations of the works of its professors to the Latins. Thus from Spain arose two sources whence its doctrines flowed into the world of scholasticism, which had hitherto existed only on the few, scanty, impure rills of Greek and Roman philosophy that had managed to trickle through the stagnation of the middle ages.

From the western source it poured into France, and as early as the commencement of the 13th century, about the time that Michael Scot carried the knowledge of them into Italy, we already find the works of Aristotle, and the Commentaries on them, condemned by the Council of Paris, and ever after they were a terror and a stumbling-block to orthodox French scholastics. It was not, however, the commentaries of Ibn-Roshd, but those of the earlier philosophers of the Arabic School that were then attacked, and it is not till some years after that we find the regular onslaught on what is rightly called Averroïsm, made by Thomas Aquinas and continued by his Dominicans.

The eastern source of Peripateticism welled up strong in Padua. The Emperor Frederick II. was by no means an enthusiastic Christian. The philosophy of the Saracens, which amidst the darkness that had enveloped Christendom shone with enhanced splendour, dazzled and captivated him. Sicily was still full of Saracens; Frederick and the Sultan were good friends—to the scandal of the Church, though, perhaps, not to the dissatis-

faction of the Pope, who thus got a powerful weapon to wield against the Ghibellines; and the learned of the East thronged to the Imperial Court, secure of the patronage and favour of the sovereign. Many of these, both Arabs and Jews, were employed by Frederick to carry on the translations of the works of the Arabians, and a school was founded not so much on the basis of Aristotle's writings as on the commentaries of Averroes. In it philosophy still went hand in hand with medicine and magic, for Michael Scot did not there *learn* 'the art that none may name,' but himself introduced the studies that afterwards gave the University of Padua such an evil reputation. Padua was the intellectual soul of the north-east of Italy: Bologna was but an outlying portion of it; Venice was its printing-house. It spread the doctrines of Averroism over Italy for a time, and then, when all others had cast them out, maintained them more and more feebly within itself, until they at length finally expired at the death of Cremonini in 1631.

Even as the Arabian Theologians were aided in their attacks on the Philosophers by the

Dialectic of Peripateticism, so also were the opponents of Averroïsm in Europe assisted by the light which 'the Commentator' afforded them. When the works of his predecessors were first assailed, and when his name was only beginning to be known in Christendom, he is cited as 'a most noble philosopher;' and it was afterwards, when, having taken rank above all other commentators, he had entirely superseded them, that he was put forward as the ostensible author of all that was blasphemous and impious, and his name became a reproach. Similarly—as Aristotle had been declared by the Arabian philosophers to be the original of doctrines which they dared not promulgate as their own—so the Atheists and Sceptics of the thirteenth and fourteenth centuries imputed to Averroes what they themselves had neither the hardihood to avow, nor the authority to inculcate. It is strange that the root of the blasphemy attributed to Averroes was the doctrine of Transubstantiation. It is said that he once entered a Christian church, and saw the Communion administered; 'Horrible!' he cried, 'Can there be in the world a more besotted

set than those Christians who devour the God whom they worship?' According to the story this turned him against all religions,\* and he forthwith enunciated the blasphemous dogma of 'the three impostors.' This myth probably had its origin about the commencement of the fourteenth century.

In spite of the victories achieved by Thomas Aquinas and the Dominicans, and the fierce denunciations and powerful influence of the Franciscans, the Averroïsts made way in France during the greater part of three centuries, and got so far in advance as to maintain in their disputations such theses as the following:—*Quod sermones theologi sunt fundati in fabulis*;—*Quod nihil plus scitur propter scire theologiam*;—*Quod fabulæ et falsa sunt in lege Christianâ, sicut et in aliis*;—*Quod lex Christiana impedit addiscere*;—*Quod sapientes mundi sunt philosophi tantûm*;—*Quod non est ex-*

\* 'All religions' here means only the Jewish, the Moḥammadan, and the Christian—all the religions known to the Scholastic inventors of the fable. To the Arabians the religions of the Magians and the Sophces must have appeared as almost equalling these in philosophic importance.



*cellentior status quam vacare theologiæ ;—Quod non est curandum de fide, si dicatur esse aliquid hæreticum.*' This was no longer Averroïsm, but a renewal of the strife between the Theologians and the Philosophers, not now on the doctrines of the K̄ur-án, but on those of the Bible,—not in the field of El-Kalám, but in that of Scholasticism. There is this difference though between the two combats, that in the later the Philosophers were the attacking party.

The Theologians were in general terms the representatives of the Latin Fathers of the Church ; Rome was with them, and they wielded with energy the thunders of the Vatican against their adversaries. Besides the Averroïsts had run at once too fast and too far :—to uphold the doctrines of a pagan and a blasphemer, a follower of the false Mahound and a sorcerer, who had blasphemed with the most fearful blasphemy that a man had ever uttered, was to draw upon themselves such an overwhelming torrent of opposition and reprobation as it was impossible to survive under. Accordingly we find that Averroïsm soon expired in France even while it yet existed in Italy.

There are few English philosophers to chronicle who are celebrated in this contest, for the day of English philosophy had not yet dawned. One great name, Roger Bacon, appears on the side of the Averroïsts, but he lived before the controversy grew warm, while Avicenna was still the most renowned commentator on Aristotle, and ere the story of 'the three impostors' was hatched. He was a Franciscan, and at that time it would appear that the order had not that fierce enmity to the Arabian School that it afterwards exhibited. Duns Scotus and his pupil Occam, though both so thoroughly versed in the subtleties of the Scholastic logic, were on the other hand violent opponents of the doctrine of the Unity of the Active Intelligence, and powerful advocates for the multiplicity of individual spiritual existences. John Baconthorpe, the grand prior of the Carmelites, and Walter Burleigh, preceptor to Edward III., are the two remaining names which we must place on the side of the Averroïsts. The Duality of the Human Intelligence, and the Unity of the Active Intelligence were taught in the Universities, but they died off with the

expiry of the School in Paris, which was then really the source of such philosophy as found its way to England. It was not till Francis Bacon arose that English philosophy took a place of its own in the history of Thought.

But in Italy other elements fed the flame that threatened to consume the religion of the orthodox. Through Goth and Vandal the old Pagan religion had clung to the land in the form of a disinclination to accept without a struggle the doctrines of Christianity; and, though Rome was the seat of the Vicar of Christ, the most dangerous enemies of his faith might be found south of the Alps;—nay, it was sometimes more than whispered, under the very tiara. The political parties in Italy, too, tended to uphold it. Fostered by Frederick II. it was the creed of the Ghibellines, who passed with the opposite party for infidels and heretics: by and by it reached the Papacy itself, and Philip the Fair accused Boniface VIII. of the same errors that Gregory IX. imputed to Frederick II. ! Indeed nothing is more remarkable in the history of Arabian Peripateticism than the constant retributive alternation which seems necessary to complete

every passage in it. The Moḥammadan Philosophers perverted Aristotle, in their turn the Christian Averroïsts perverted Averroes :—the Theologians of El-Islám attacked the Philosophers, the Averroïst Philosophers attacked Augustine and the Fathers of the Church ;—El-Ghazálee attempted the ‘destruction of the Philosophers,’ but Ibn-Roshd destroyed *his* ‘destruction,’ while the Dominicans resuscitated the arguments of Algazel in their assault on Averroes ;—the Pope called the Emperor Antichrist, the King of France called the Pope an infidel ;—the Arabs destroyed the School of Philosophy at Alexandria ; the Turks drove the Greeks from Constantinople into Italy, and so commenced the final overthrow of the Averroïstic Philosophy in Europe.

The revival of letters, though it was the ultimate cause of the downfall of Scholasticism, did not immediately nor directly attain this end. Petrarch was a bitter and uncompromising enemy of everything that was Oriental in philosophy or science, yet he gave it no decisive blow himself, and it was the work of time hastened by the new study of Greek

literature, and the consequent knowledge of pure Greek philosophy which flowed in upon the West, that gradually extinguished Averroism, even in the University of Padua, where it had struggled on fulfilling the last contradiction that was left it, and sustaining the immortality of the soul against the Alexandrists! The progress of learning and the stimulus to thought given by the Reformation swept away the barbarous technical terminology of the schools, and cleared the minds of men to the perception of the truth of their individual responsibility, and the absurdity of the doctrine of the Unity of the Intellect; and human thought had again to pass through the furnace of eclecticism before another and a more thorough and repulsive form of Pantheism arose to disfigure the philosophy of the last three centuries. Even in this, however, we have the connecting Hebrew element, and Spinoza is only a link of the chain that we can trace back, through the Jewish Philosophy of Spain and Alexandria, to the captive Hebrews in Babylon, and which we lose at last in Zoroaster.

In his monograph on Averroes and Aver-

roïsm M. Renan has produced a work of great value and importance to the student of philosophy. His well-known learning, and his now equally well-known grace of style adorn it throughout ; while as a philosophical work it has nothing to do with those views which we so much deplore in his theology. Occasionally, it is true, religious prudery might detect a sentence or a phrase that seems to indicate opinions not altogether consonant with the teachings of Revelation, but in another than M. Renan these would have passed unnoticed, and in no way can they impair the usefulness of the work, nor do they ever interfere with the fairness of its critical spirit.

SIR W. HAMILTON AND  
MR. MILL.

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*An Examination of Sir William Hamilton's  
Philosophy, and of the principal philosophical  
questions discussed in his Writings, by JOHN  
STUART MILL. London: Longmans, 1865.*

‘THIS circumstance—namely, that philosophy exists only to put to right the oversights of common thinking—renders her polemical, not by choice, but by necessity. She would gladly avoid all fault-finding; but she cannot help herself. She is controversial as the very tenure and vindication of her existence; for how can she correct the slips of common opinion, the oversights of natural thinking, except by controverting them?’—*Professor Ferrier.*

IN examining the writings of Sir W. Hamilton it requires no very profound genius to discern, that however much they are to be prized as calling attention to subjects that had previously been neglected by philosophers

in this country, and as reviving and almost renewing old subjects, by bringing them before us in a fresh point of view, and illuminating them, if not with the brilliancy of great original genius, at least with the reflected light of a vast and varied knowledge of the opinions of all previous writers on philosophy, they are disfigured by numerous inconsistencies and contradictions, by frequent paralogisms, and by a total inability to make a proper use of that assistance which mathematical and physical science affords to metaphysics. We had occasion to notice in 'The Elements of Logic' some of these defects which were more immediately connected with that science. But the nature of a work which was professedly but a text-book, gave little opportunity for their discussion at length, and none whatever of viewing them in connection with a definite system of metaphysical philosophy. Since it was published, Mr. Mill has brought out his 'Examination of Sir W. Hamilton's Philosophy,' which he carefully and ably reviews, and criticises in minute detail.

His voluminous—perhaps rather too volu-



minous—examination is so searching that it has left unnoticed scarcely anything in the five large volumes which contain Sir W. Hamilton's Lectures and Essays, or in his notes and dissertations in his edition of Reid. Consequently much of the material which we had prepared for this essay, while investigating these writings for another purpose, is rendered useless, and we must confine ourselves to comparatively few points even in those subjects on which he has left us room to touch.

But though Mr. Mill's criticism is searching, from the want of a reasoned system of metaphysics as a basis of action it is not so conclusive as it might otherwise have been. Had Sir W. Hamilton's philosophy been itself founded on a reasoned system, then his critic would have been reduced to one of two courses; either to show that the system was wrong, which would have necessitated the promulgation of another; or having admitted the validity of the system, to show the faults of detail or inference, and leave the system to take care of itself, which a reasoned system is well able to do. But even in his Logic, which

may be called the most *orderly* of his works, there is no real system; indeed with a writer so hazy and inconsistent the existence of a system is out of the question.

As to his inconsistency, a philosopher may be inconsistent from two very different causes: either from making progress in philosophical research, or from a want of clear-headedness. He who is not more or less inconsistent from year to year, as he views every subject in some new light, must be making no progress; either he is no worker, or he has reached his *maximum*—gone as far as his capabilities will enable him to go. But the inconsistencies of progress are successive; they are not to be met with in any individual work of the author, but only in his works taken as a whole, showing the successive stages of his advancing thought. He may have said yesterday that A was B, and to-day he may unhesitatingly deny that proposition and say that A is C; and his doing so is not only unobjectionable but commendable, as a proof at once of progress and conscientiousness. But when an author contradicts himself in the same work, in almost every important statement that he

makes, when self-contradiction is the rule and uniformity of opinion the exception, and when that work is a course of lectures that were repeated and taught during many years, so that these inconsistencies, so numerous and so striking, were being continually obtruded on his attention, we cannot help imputing them to the second cause we mentioned; and in no case could that opinion be more corroborated by other evidence than in that of Sir W. Hamilton. It is a hard thing to say, but it is no less true, that the late profoundly learned and deservedly celebrated Professor of Logic in the University of Edinburgh could not have had what is usually designated a logical mind. The 'results' of the Explicit Quantification of the Predicate, which he lays down as the basis of the 'New Analytic of Logical Form' show that; the blunders that he made whenever he ventured—as he was very fond of doing—an idea on, or an illustration from even the simplest and most elementary subjects in mathematical or physical science, show that; his theory of the Primary, Secundo-primary, and Secondary Qualities, made in the face of the physical

knowledge of the present day, shows that ; his confusion of three different meanings of the word 'self' shows that ; the frequent fallacies which he employs in his arguments, as in that on infinite space, all show that ; and above all his 'Contradictions\* proving the Psychological Theory of the Conditioned' show that. Perhaps the only instance in which he regularly states an argument that turns out to be correct is that in which he uses the *reductio ad absurdum* to prove the necessity of our belief in Consciousness, and which Mr. Mill so unfortunately falls foul of. Sir William even seems to have seen this himself, as he is never tired of repeating it.

But Sir W. Hamilton is the idol that a large and overzealous school have set up, and called on all men to fall down and worship ; and it has been deemed the rankest heresy not to bow to his divinity, or even to hint that it was of a questionable nature. No one dared to disbelieve what was stamped with his *ipse*

\* Sir W. Hamilton uses the term 'Contradictory' in a different sense from that in which it is generally accepted : with him it is equivalent to what is usually called the 'Contrary' in necessary or impossible matter.

*dixit*; and many a man, who on his own footing would have had small claim to the title of a philosopher, has got the reputation of being one by his unhesitating adherence to what he neither did, nor could, understand. And kept his reputation, too, by propounding similar doctrines; for it is easier to talk unintelligibly than intelligibly, and people have the idea that philosophy to be worth anything must be unintelligible, while philosophers, we are ashamed to say, have generally speaking humoured their conceit, from Thales to the present day. Such ghostly abstractions as, the Good, the Beautiful, the True, the Infinite, the Absolute, the Unconditioned, were talked of as though they had actual concrete existences, and floods of the Absolute, in the form of nonsense, and some little blasphemy, were the natural results. Relation and Negation are to philosophers at their wits'-end what horses are to beggars, set them astride on one of them, and in a twinkling they gallop through infinite time and space to their destination:—these steeds have been hard-riden for the last twenty years. Sir W. Hamilton is not fairly answerable for *all* this: he was clear in his

language, and in so far as that alone was concerned always intelligible, though not so pre-eminently so as Mr. Mansel, who may vie with Professor Ferrier for clearness of language and style. It was in thought that Sir W. Hamilton was obscure. And although he was the principal introducer into this country of the German philosophy, and though instead of showing how much of it is utter emptiness, he worked up a philosophy of the Unconditioned of his own, yet no man could ever stand more free from any charge not merely of blasphemy, but even of the slightest irreverence. We may say, indeed, that he was a bulwark against German scepticism, for had it not been for his theory of belief—a modification of the Kantian—we should probably have had the philosophy of Hegel—‘the notional reciprocity of a single disjunctive sphere’—dominant among us, and the pantheism of Strauss nearer home than would be desirable. Still it was in Sir W. Hamilton’s name that it was all done. There was a sort of philosophical reign of terror, and woe to him who dared to see a fault in the great man who had ‘unsphered the soul of

Aristotle'—whatever that may mean—who had 'laid the topstone on the fabric' of Logic, and done so many other wonderful feats of the same kind!

The end of this state of things, however, came at last. Mr. Mill is one of the few in England whose position is too high for the Hamiltonian School to put down, whose reputation is too great for his light to remain under a bushel, and who when he speaks commands a wide attention. Consequently from his criticism Hamiltonism has received a blow from which it can never recover; not more, if so much, from what Mr. Mill has himself done in the way of destruction, than from his having broken down the wall, and let in a crowd of critics to pull to pieces the edifice on which formerly they not only did not dare to lay a finger, but on which they had to look, or at least pretend to look, with reverence and awe.

But there was never yet an idol set up that had not some real claim at bottom on the veneration of its worshippers, however far that claim might fall short of divinity; and certainly Sir W. Hamilton neither obtained nor main-

tained his position without a real merit to back him. He was erudite, and that to an extent rarely met with. Probably there was not a work on philosophy in any of the Occidental languages that he had not studied; and he knew as much of the works of the Saracens as can be learned from the double-distilled, or, more properly speaking, double-adulterated versions of them that the scholastics have left us. In connection with this vast amount of study he had a memory that not only kept the results of it together by its retentiveness, but gave him the full use of it by its readiness, and enabled him to bring to bear on any question a weight of authority that it would have taken most men a lifetime to accumulate. In their way his reading and his memory were as wonderful as Cudworth's in philosophy, or Southey's in general literature. But, after all, this is no great staff to lean on in philosophical research, where truth and not authority must be the criterion submitted to. Besides, it is unquestionable that, though we cannot reasonably maintain the extreme opinion that great readers are seldom great thinkers, at any rate the tendency of extreme reading



is to check originality and depth of thought ;\* and had Sir W. Hamilton read less and trusted more to his unaided efforts, he might have had a clearer head, and have made a better use of half the material than he did of the whole. He is always more anxious to find a flaw in his opponent's historical references than in his argument—to quarrel with his learning rather than with his sense—and to give the one class of objection at the very least as much weight as the other. His attacks on Whately and Brown show this in a marked manner. Mr. Mill remarks that he was better at criticising an opponent's system than at propounding one of his own, and a man who has spent most of his life in the critical study of other men's works is almost sure to be so. He never begins by forming an original system, and then taking opinions on it—thinking out the subject in the first place, and when he has got it systematised, blocked out, and the details somewhat settled, lighting it up with the opinions of others, and with their aid searching out its defects and amending them—but

\* 'Had I read,' says Hobbes, 'as much as some others, I should be as ignorant as they are.'

he has his mind preoccupied at starting by a system which he has formed imperceptibly, picking up one bit here and another there; a system that is only *his* in so far as it is of his own patching, which must conform to the law of all eclecticism and contain much that is inconsistent and contradictory, while it lacks any little originality that the other may have. We say 'little originality'—we mean not subjective but objective originality—for in the matter of a system of metaphysical philosophy a little originality is all that any one can hope for. Lord Jeffrey has remarked that we cannot reasonably expect much advance in Metaphysics (which he limits in this case to mental science) by the method of induction; as, in physical science, of its two modes—experiment and observation—the latter when unaided by the former has been of slight utility, and it is it alone that is applicable to the science of mind; and *there* it must now be even less fertile in discovery than in physical science, as its field is common to and to some extent explored by all men. Without going all the length to which he carries this argument, we must admit that the main assertion is correct; and that, therefore, in Metaphysics we must trust princi-

pally to deduction, and to deduction from a very limited number of well-known premises. When we consider how often the ground has been gone over, and by what masters of the science, it seems strange that any one should venture on it once more except as a matter of personal curiosity and gratification. But there is an element in the progress of metaphysical science, which Lord Jeffrey overlooked. The streams of human knowledge are so necessarily connected that one cannot increase without swelling the volume of all the others; and thus the progress of physical and all other science contributes to the progress of Metaphysics, not only by clearing the ground on which it is based, but by widening its path, and freeing its action, ridding it of much that once clung to it, and that, foreign to it in its essence, impeded its progress. It was Sir W. Hamilton's misfortune to be unable to avail himself to any extent of this kind of assistance; opinions he could canvass, facts he could not reason on.

Without following the order in which Mr. Mill takes up the subjects which he criticises, for the loose, independent mode of criticism that he adopts renders attention

to method of small moment, we shall first examine the question of 'The Relativity of Knowledge.'

What does the phrase 'Relativity of Knowledge' mean? If knowledge be relative there must be a correlative, what is it? What is the other party to the relation? for a relation, like a bargain, must have two to it. Now, speaking not of the constituent parts of the knowledge of an intelligence, but of the knowledge of any one intelligence as a whole, there are only two things with which it is connected,—the object of which it is the knowledge, and the subject whose knowledge it is; and, if it be relative, it must be to one or other of these, or to both of them. We accordingly find that the 'Relativity of Knowledge' has two different meanings; one, where the relation is between the knowledge and the subject; the other, where the relation is between the knowledge and the object. The former relation is evolved from the question, 'What is the absolute in cognition?' the latter, from the question, 'What is the objective in cognition?' It is the want of a clear distinction between these questions

—the confusing the absolute and the objective in cognition—the vicious habit of not starting metaphysical inquiry from the lowest foundation, and the equally vicious habit of never reasoning it consecutively, wherever it may be started from—that has occasioned most of the cross-disputation on the doctrine.

Another meaning of the ‘Relativity of Knowledge’ springs from the consideration of the knowledge of an intelligence not as a whole, but as a synthesis of its constituent parts: ‘An intelligence,’ it is said, ‘only knows any object by discriminating it from others,’ or, in other words, ‘the objective part of any cognite\* only exists by the dis-

\* Sir W. Hamilton was the first philosopher in this country who saw and remedied the confusion and error that sprang from the ambiguous use of such terms as *conception*, and *perception*, which had been always employed in the two very different senses of the act of mind—the act of conceiving, the act of perceiving, &c.—and the result of the act. The latter he called in conformity with the Latin terminology *concept* and *percept*, though we are not aware that he ever actually used the term *percept*. In the same way he applied the term *imagination* to the mental act of imagining, and *image* to its result. Now *cognition* labours under the same disadvantages as *conception*, *perception* and *imagination*, so we purpose to use it only in the sense of the mental act = *cognitio*, and the term *cognite* = *id quod cognitum*, as the result of it. *Thought* is in a

inction between it and the objective parts of all other cognites.' A very little reflection will show that this doctrine involves an absurdity of the first water. It requires us to know a relation before we know the relative and correlative,—to distinguish between things in order to know them, coupled with the impossibility of knowing them in any other way, and so to distinguish between things which we do not know. A distinction must be made by a judgement of the mind, but how can the mind judge unless it first knows the things between which it judges? How is knowledge to be attained if we cannot know anything till we know a plurality of things? Is the knowledge of one thing *per se* an impossibility, because not in accordance with our experience? Suppose an intelligence destitute of perception,

similar predicament with the others; in this case, we shall use it for the product of the act, and *cogitation* for the act of thinking. *Thinking* might have done instead of *cogitation*, but the latter runs better with *conception*, *perception*, &c., (though for these we could use the terms *conceiving*, *feeling*, *fancying*, *knowing*). Indeed the analogy would be more complete were we to employ *cogitation* for the act, and *cogitate* for the result of it, but the latter would be awkward, as it is already used in English as a verb, and *thought* answers the purpose perfectly.

and endowed with only one state of mind, it could have but one cognite, as we shall presently see ; would that cognite be *nil*, or, in other words, is the existence of such an intelligence inconceivable ; not improbable, but in the very nature of things impossible, for an intelligence which knows nothing is a contradiction in terms ? May we not suppose the existence of an intelligence endowed with perception, co-existing, and in connection with a material object having only one mode ? The knowledge of that intelligence would be only one cognite, the objective part of which could never be compared with, or distinguished from anything but the subjective part of the same cognite ; would that cognite also be *nil*, and therefore that intelligence also non-existent and impossible ? We have said, how is knowledge to be attained if we cannot know anything until we know a plurality of things ? If our cognites came successively, the first of them would be *nil*, there would be no other to compare it with, and in order to know anything our consciousness would require to be at least dual, not in the sense of our being at once conscious in every cognite of the ego

and of the non-ego, but in the sense of our requiring at first to be simultaneously conscious of two cognites. But even supposing it were possible for our knowledge to have a commencement of such a kind, still every cognite would require the simultaneous presence in the mind of all our other cognites, for, on this hypothesis, it is only by its difference from them that it is known; but this constant presence of all our cognites, this perpetual bird's-eye view of all our knowledge, which would render memory a farce, is, we know, non-existent in the human intelligence, and is by us only ascribed to that of God.

Setting aside, therefore, this meaning of the term 'Relativity of Knowledge,' though it is employed by Mr. Bain, and approved by Mr. Mill, let us return to the first meaning of it, and inquire, What is the absolute in cognition? What is the real nature of a cognite of an intelligence viewed relatively to that intelligence? What is the common nature of all knowledge? What is an intelligence conscious of when it does know?

The late distinguished Professor Ferrier, in his 'Institutes of Metaphysics,' starting from



the same base as Fichte—the principle of the ego and the non-ego—works out the problem with admirable power, and still more admirable simplicity. The conclusion at which he arrives is given in the twenty-first proposition of the Epistemology:—‘Object *plus* subject is the absolute in cognition; matter *mecum* is the absolute in cognition; thoughts or mental states whatsoever, *together* with the self or subject, are the absolute in cognition; the universal in union with the particular is the absolute in cognition; the ego or mind in any determinate condition, or with any thought or thing present to it, is the absolute in cognition. This synthesis, thus variously expressed, is the absolute, and the only absolute, in cognition.’

Considering the extreme clearness, and the logical nature of Professor Ferrier’s mind, it is singular that he should have allowed an error to creep into his reasoning which vitiates the above proposition as it stands. In order to see what this error is, and how it got into the argument, we must, first of all, look at the ground from which he starts. He says,\*

‘The common point, or quality, or feature in

\* *Instit. of Metaph.* Introd. § 84, *et seqq.*

all our knowledge must be such an element as is necessary or essential to the constitution of every datum of cognition. In other words, it must be such an element that, if taken away, the whole datum is, of necessity, extinguished, and its restoration rendered absolutely impossible until the missing element is restored. The element which we must find as a reply to the first question of philosophy must be of this character, otherwise it would not answer the purposes of a strictly-reasoned scheme : it would not be the *one* point present in *every* cognition. Experience may confirm the truth of the answer ; but reason alone can establish it effectually.

‘ To re-state, then, the fundamental or proximate question of philosophy, it is this—what is the *one* feature which is identical, invariable, and essential in all the varieties of our knowledge? What is the standard factor which never varies while all else varies? What is the *ens unum in omnibus notitiis* ?

‘ That is the first question of philosophy—the *only* first question which it can have ; and its answer is the absolute starting-point of Metaphysics. That answer is given in the

FIRST PROPOSITION of these Institutes, which proposition it constitutes.

‘ Prop. I.—Along with whatever any intelligence knows, it must, as the ground or condition of its knowledge, have some cognisance of *itself*.

‘ *Self* or the “me” is the common centre, the continually known rallying-point, in which all our cognitions meet and agree. It is the *ens unum, et semper cognitum, in omnibus notitiis*. Its apprehension is essential to the existence of our, and of all, knowledge. And thus Prop. I. forms an explicit answer to the question laid down as the first question of philosophy: What is the one feature present in all our knowledge,—the common point in which all our cognitions unite and agree,—the element in which they are identical? The *ego* is this feature, point, or element: it is the common centre which is at all times known, and in which all our cognitions, however diverse they may be in other respects, are known as uniting and agreeing; and besides the *ego*, or oneself, there is no other identical quality in our cognitions—as any one may convince himself

upon reflection. He will find that he cannot lay his finger upon anything except *himself*, and say,—This article of cognition I *must* know along with whatever I know.’

There can be no question that this foundation of metaphysical inquiry is the only correct one,—that it is the one true starting-point in the great inquiry,—‘What can be known?’ and, therefore, the one true starting-point in what is frequently considered a much greater inquiry—though, in truth, it is only a corollary to the former,—‘What can exist?’ The five propositions which immediately follow are equally correct with the first, and begin the developement, in a chain of consecutive reasoning, of the results which necessarily flow from its undeniable truth. But unfortunately Professor Ferrier omitted to define ‘self or the ego;’ he neglected to limit it in its extent—to what is its true meaning in these propositions. In common language a man’s *self* may mean not only his mind, but his mind and body together, or his body alone, or his continuous personal identity, or his personal welfare or interest. The self of *any* intelligence cannot possibly have such a va-

riety of meanings, but it may have three. It may mean either, first, the intelligence viewed as a whole—the mind; or, secondly, the fact of its immediate (i. e. its *present*) individual existence; or, thirdly, its continuous identity. It is in the second sense only that the term can be employed as the subjective part of cognition. It cannot be employed in the first, for all our states of mind are only known as the objective in cognition, and they cannot, therefore, form part of the subjective, while mind as a whole is incomplete without them; nor can it be employed in the third, for continuous individual identity is not a constant element of all cognites. (Self or the ego, then, must be the fact of the immediate individual existence of the cognitive intelligence; a part of cognition, and a part of it at all times; the consciousness of which is a state of mind, but differing from those other states, that make up the complement of our consciousness, in so far that while *they* are but occasionally present—*one* being always on duty as the objective in cognition—*it* is ever a part of what is really existence—thought. But in Prop. VII. Professor Ferrier intro-

duces the ego as synonymous with mind, and, having once so introduced it, employs it in that meaning throughout the remainder of his work, and in the observations on the very next proposition assumes from the proved immateriality of the ego, the immateriality of the mind as known. The immateriality of the mind as known may be deduced, in a few propositions, in a manner similar to that in which he deduces the immateriality of the ego, but they must start from a different base. The immateriality of the mind is not a question of Ontology, not the question of its existence, but a question of Psychology, which assumes its existence, and then inquires into its nature as existent: and the immateriality of this nature can no more be proved from the immateriality of the ego, than it can be proved from the immateriality of memory or imagination.

Having taken this objection to Professor Ferrier's argument, let us see how it will act in modifying his statement of what is the absolute in cognition. We shall have to delete the words 'or mind in any determinate condition,' for if we retain them, substituting for the mind its equivalent ego, we should

have as our expression for the absolute in cognition, 'the ego in any determinate condition;' but even Professor Ferrier admits\* that the ego in cognition is merely phænomenal, and how, then, can the phænomenal in cognition be in any determinate condition? or how can it become the absolute in cognition when it is not the substantial? The proposition as we amend it will stand thus:—'Object *plus* subject is the absolute in cognition; matter *mecum* is the absolute in cognition; thoughts or mental states whatsoever, together with the self or subject, are the absolute in cognition; the universal in union with the particular is the absolute in cognition; the ego with any thought or thing present to it is the absolute in cognition. This synthesis, thus variously expressed, is the absolute, and the only absolute, in cognition.'

The 'Relativity of Knowledge,' in this, the subjective, meaning of the term, may be well illustrated by an example:—Suppose an artist going to paint a landscape; he must paint it from some point of view; he cannot paint it from no point of view, and he cannot

\* *Epistemology*, Prop. XV. and XVII. § 20.

paint it as seen simultaneously from more than one point of view. He may with the aid of imagination paint it as seen from a point of view from which he himself never beheld it, but then in imagination he has removed his point of view to that spot;—he paints it from an imaginary point of view, but he always founds his imaginary landscape on what he sees from his real position. So it is with knowledge: the ego corresponds to ‘the point of view;’ it is impossible to know without it; it is impossible to know with more than it. It has nothing to do with the objective part of our knowledge, any more than the point of view has to do with the objects that constitute the landscape. It is no more the *mind* of the intelligence than the aperture of the iris is the sense of sight; but it is as necessary to render the objective a part of knowledge, as the other is to make the hills, woods, and streams a landscape; and the mind of the intelligence would be as *nil* without it, as the eyeball were the iris to contract and shut out every ray of light. One intelligence may imagine the knowledge which another has by forming a concept which it



fancies is like the cognite of the other, but it does so solely by putting its own ego, in imagination, in the place of the other, and it is really its own knowledge, of which its own ego is the subjective part, that it employs in its work.

The second meaning of the term 'Relativity of Knowledge' involves the question, 'What is the objective in cognition?' To avoid confusion of terms it is necessary here to explain that the 'objective in cognition' is not the 'object of cognition:' the latter is the 'absolute in cognition.' The objective in cognition is that part of the absolute in cognition which, though not separable from the subjective part or ego, is distinguishable from it. In our amended form of the proposition which lays down the absolute, the objective would be variously expressed by 'matter'—'thoughts or mental states'—'the particular'—'any thought or thing.' In the ordinary unphilosophical language of most writers, the objective and the object are considered as one and the same thing, the subjective element of the latter being ignored, although in truth it is the constant while the

other element is the variable,—it is the universal while the other is the particular,—it equally with the other is necessary to the existence of the object.

Our inquiry into the objective in cognition may be at once limited to the cognition of human intelligences, as what may be the objective in the cognition of other intelligences, we can only imagine by analogy, and state in very vague and general terms. Now it is commonly said that our knowledge is comprised in two great divisions—the knowledge of mind, and the knowledge of matter; and, as far as ordinary talk on the subject goes, this answers well enough; but when we come to a careful consideration of the question, we find, at the very outset, that neither absolute matter nor absolute mind is the objective in cognition. The mind, of which the cognitive power is a function, is connected with the body by some mysterious tie, of which we can only say that it is somehow dependent on the vitality of the bodily organisation; and in a similar mysterious way the states of the body act on the mind, or, at least, are so connected with it that perception—a state of mind which

we know, as we know our other states of mind, by consciousness—makes us aware of them. The mind knows its own states *immediately* by consciousness; and the states of the body *mediately* by consciousness, through perception. The mind has no immediate knowledge through consciousness of anything but itself: it only knows the states of that body to which it is allied, *mediately* through perception; and the world external to its body, *mediately* through perception and through the states of the body. The mind cannot see material objects without the eye, hear the vibrations of sound without the ear, or taste or smell or touch if the nerves of the organs proper to these senses be paralysed. The mind, therefore, knows nothing immediately but its own states; and, ‘states of mind, or mind in a determinate condition, is the *immediate* objective in cognition,’ and, looking back to the answer to our former question, we may again modify it, and say:—‘Object *plus* subject is the absolute in cognition; thoughts or mental states whatsoever, together with the self or subject, is the absolute in cognition; the universal in union with the particular is

the absolute in cognition; the ego with any thought present to it is the absolute in cognition. This synthesis, thus variously expressed, is the absolute, and the only absolute, in cognition.'

But why do we say that 'states of mind, or mind in a determinate condition,' is the immediate objective in cognition, and do not at the same time admit 'absolute mind' to be the objective? (What is absolute mind?)  
*See.* Absolute mind is mind in an indeterminate state, or divested of all thoughts—standing in no relation to anything else—having no correlative. Now, setting aside the consideration that the objective in cognition is always a relative—cannot exist, in fact, except in relation to the subjective—a consideration which is at once fatal to any attempt to identify it with absolute mind; setting this aside, we know that we never have mind present to the ego except in a determinate state—never as divested from thought, but only as thought—and therefore we say that not absolute mind, but only states of mind—active or passive modes of mind—mind in determinate condition can be the objective in cognition. Again,

as the ego is not mind, but only the fact, the reality of its immediate individual existence—a part of the absolute of our cognition—a part of the object of our general consciousness, only a constant part of it, while memory, imagination, perception, &c., are by turns the variable portion; and as the ego, or subjective, and the objective—the relative and the correlative—together form the absolute in cognition, it follows that, not only the objective, but also the absolute in cognition is never absolute mind. We never know mind, we only know states of mind in combination with the ego.

What then is the objective part of our knowledge that pertains to matter? The presentations of our bodily states as we find them in perception. Then do our bodily states, which are affections of matter by matter, afford us any knowledge of absolute matter? A very short answer suffices: our bodily states being material effects must correspond with certain material causes, of which they are the correlatives; therefore they can never give us any information of what is absolute in matter, i. e. of matter subject to no mode—matter divested of all relation; they can possibly give

us information of modes of matter only, for, being effects, were the cause always the same, and absolute matter *must* always be the same, they would be always the same, which we know not to be the case; therefore the objective part of our knowledge which pertains to matter cannot even be a mediate representation of absolute matter; and, coupling this with what we have already said concerning mind, we may now say;—Of absolute mind and of absolute matter we cannot have any knowledge which is merely subjectively relative, but all our knowledge of them must be, also, objectively relative, and these objective relations must form, mediately and immediately, the objective of all our knowledge.

—Therefore our knowledge is relative in two directions; first, it is relative to the intelligence which knows—relative to it as an existing individual intelligence: and, secondly, it is relative to the object of which it is the knowledge, as being the knowledge, mediate or immediate, of states or modes only of that object.

Having so frequently used the terms conscious and consciousness, it will be advan-

tageous if we here digress from the more immediate subject of investigation, and inquire, shortly, what consciousness is held to be by philosophers.

The principal question is, 'Is consciousness a state of mind, or is it merely a name for all our states of mind?' The former is the opinion of Reid; the latter is held consistently by Brown, inconsistently by Sir W. Hamilton.

Reid says in a passage, which is, perhaps, more frequently quoted than any other in his writings,\*—'Consciousness is an operation of the understanding of its own kind, and cannot be logically defined. The objects of it are our present pains, our pleasures, our hopes, our fears, our desires, our doubts, our thoughts of every kind; in a word, all the passions, and all the actions and operations of our own minds, while they are present. We may remember them when they are past; but we are conscious of them only while they are present.

'When a man is conscious of pain, he is certain of its existence; when he is conscious that he doubts or believes, he is certain of the existence of those operations.

\* *On the Intellectual Powers*, Essay vii. cap. 5.

‘ But the irresistible conviction he has of the reality of those operations is not the effect of reasoning; it is immediate and intuitive. The existence therefore of those passions and operations of our minds, of which we are conscious, is a first principle, which nature requires us to believe upon her authority.

‘ If I am asked to prove that I cannot be deceived by consciousness—to prove that it is not a fallacious sense—I can find no proof. I cannot find any antecedent truth from which it is deduced, or upon which its evidence depends. It seems to disdain such derived authority, and to claim my assent in its own right.

‘ If any man could be found so frantic as to deny that he thinks, while he is conscious of it, I may wonder, I may laugh, or I may pity him, but I cannot reason the matter with him. We have no common principles from which we may reason, and therefore can never join issue in an argument.

‘ This, I think, is the only principle of common sense that has never directly been called in question. It seems to be so firmly rooted in the minds of men, as to retain its authority with the greatest sceptics. Mr.



Hume, after annihilating body and mind, time and space, action and causation, and even his own mind, acknowledges the reality of the thoughts, sensations, and passions of which he is conscious.

‘No philosopher has attempted, by any hypothesis, to account for this consciousness of our own thoughts, and the certain knowledge of their real existence which accompanies it. By this they seem to acknowledge that this at least is an original power of the mind; a power by which we not only have ideas, but original judgments, and the knowledge of real existence.’

In this passage we have to note three points in his view of consciousness: 1st, Consciousness is ‘an act of the understanding of its own kind,’ in other words, it is a distinct state of mind; 2nd, It gives us only present knowledge, i. e. we are conscious of our remembrances, judgements, &c., only at the instant when they are presented to consciousness by memory, judgement, &c. Memory has the past for its object, and gives us the remembrance as a present result. Consciousness has the remembrance for its object, but only as a

present fact and divested of any relation to past time. Judgement, imagination, &c., are all dependent on memory, and consequently are all dependent on the past. Consciousness would still exist though memory were annihilated; 3rd, Consciousness is always accompanied by belief in its *immediate* object, i. e. it gives no belief in the remembrance, the judgement, or the imagination, but it compels belief in the reality of the remembering, the judging, or the imagining.

Brown denies the first of these assertions, and says,\* ‘ This attempt to double, as it were, our various feelings, by making them not to constitute our consciousness, but to be the objects of it as of a distinct intellectual power, is not a faithful statement of the phenomena of the mind, but is founded partly on a confusion of thought, and still more on a confusion of language. . . . ( To the whole series of states of mind, then, whatever the individual momentary successive states may be, I give the name of our consciousness ) using that term not to express any new state additional to the whole series (for to that which is already the whole nothing can be added, and the mind, as

\* *Lecture XI.*

I have already said, cannot be conceived to exist at once in two different states), but merely as a short mode of expressing the wide variety of our feelings ; in the same manner as I use any other generic word for expressing briefly the individual varieties comprehended under it. There are not sensations, thoughts, passions, and also consciousness, any more than there is quadruped, or animal, as a separate being to be added to the wolves, tigers, elephants, and other living creatures which I include under those terms.

‘ The fallacy of conceiving consciousness to be something different from the feeling, which is said to be its object, has arisen, in a great measure, from the use of the personal pronoun *I*, which the conviction of our identity, during the various feelings, or temporary consciousness of different moments, has led us to employ, as significant of our permanent self, —of that being, which is conscious, and variously conscious, and which continues, after these feelings have ceased, to be the subject of other consciousnesses, as transient as the former. *I am conscious* of a certain feeling, really means, however, no more than this—I feel in

*See*

a certain manner, or, in other words, my mind exists in that state which constitutes a certain feeling;—the mere existence of that feeling, and not any additional and distinguishable feeling that is to be termed consciousness, being all which is essential to the state of my mind, at the particular moment of sensation; for a pleasure, or pain, of which we are not conscious, is a pleasure or pain, that, in reference to us at least, has no existence. But when we say, I am conscious of a particular feeling, in the usual periphrastic phraseology of our language, which has no mode of expressing, in a single word, the mere existence of a feeling, we are apt, from a prejudice of grammar, to separate the sentient *I* and the feeling as different,—not different, as they really are, merely in this respect, that the feeling is one momentary and changeable state of the permanent substance I, that is capable of existing also, at other moments, in other states,—but so radically different, as to justify our classing the feeling in the relation of an object, to that sentient principle which we call I,—and an object to it, not in retrospect only, as when the feeling is remembered,

or when it is viewed in relation to other remembered feelings,—but in the very moment of the primary sensation itself; as if there could truly be two distinct states of the same mind, at that same moment, one of which states is to be termed sensation, and the other different state of the same mind to be termed consciousness.

‘To estimate more accurately the effect which this reference to self produces, let us imagine a human being to be born with his faculties perfect as in mature life, and let us suppose a sensation to arise for the first time in his mind. For the sake of greater simplicity, let us suppose the sensation to be of a kind as little complex as possible; such, for example, as that which the fragrance of a rose excites. If, immediately after this first sensation, we imagine the sentient principle to be extinguished, what are we to call that feeling which filled and constituted the brief moment of life? It was a simple sensation and nothing more; and if only we say, that the sensation had existed,—whether we say, or do not say, that the mind was conscious of the sensation, we shall convey precisely the same

meaning ; the consciousness of the sensation being, in that case, only a tautological expression for the sensation itself. There will be, in this first momentary state, no separation of self and the sensation,—no little proposition formed in the mind, *I feel*, or *I am conscious of a feeling*,—but the feeling, and the sentient I, will for the moment be the same. It is this simple feeling, and this alone, which is the whole consciousness of the first moment ; and no reference can be made of this to a self, which is independent of the temporary consciousness ; because the knowledge of self, as distinct from the particular feeling, implies the remembrance of former feelings,—of feelings, which, together with the present, we ascribe to our thinking principle ; recognising the principle, the self, the *me*, as the same amid all its transient diversities of consciousness.’

The first part of this argument rests on the ground that ‘the whole series of states of mind’ does not include consciousness, and, therefore, that, as the series is ‘a whole,’ consciousness cannot be added to it. This is a good *petitio principii* ; the assertion, that the series is a whole without consciousness, as-

sumes the very conclusion for the proof of which it is employed as a premise. The same may be said of the illustration in the latter part of it; in the supposed case of a human being whose existence is limited to the short span of one single sensation, to say that that sensation was 'a simple sensation and nothing more,' and so to deny consciousness to that existence as a separate state of mind which had been manifested in it, is simply stating the case, not as it would really exist, but as it would be were consciousness not a separate state of mind. The reality is far different, for that single simple sensation could not be felt, i. e. thought as knowledge, by the subject of it, without the elements of the ego and consciousness. Again, states of mind are not things *per se*, they are modes of mind, and to assert, that the mind cannot exist in two of them at once, is as if one were to say that a material object could not have two qualities at once. The assertion is contradicted by many facts; in truth the mind is almost always in two states at once, and sometimes in more than two. It cannot judge without at the same time remembering;

it cannot imagine without judging, and therefore remembering, at the same time. No one asserts that the remembrance is *separable* from memory, but every one allows that it is *distinguishable* and *distinct* from it; so while we say that consciousness is inseparable from our other states of mind, that another state of mind is necessary to its existence, that as a subjective power it cannot be without an object—any more than memory can exist without a remembrance,—we at the same time say that it is distinguishable and distinct from the power with which it co-exists, and no more to be confounded with it than the memory with the remembrance. And this is precisely what Brown himself declares unwittingly when he says, ‘*I am conscious of a certain feeling really means no more than this,—I feel in a certain manner, or, in other words, my mind exists in that state which constitutes a certain feeling.*’ ‘*I feel in a certain manner,*’ exactly expresses the two distinguishable, but not separable, things, the feeling, and the manner of feeling. When we analyse the word ‘feeling,’ we find that it means, the consciousness of a state of mind,



the particular state of mind is determined by 'the manner' of the feeling. Thus if any one is misled by confusion of language, it is he, when he uses the term 'feeling,' which implies a synthesis, as though it only expressed a simple, unresolvable, elementary state. His confusion of language is no less remarkable when he co-ordinates 'sensations, thoughts, passions;' and his making *his, I*,—the self of continuous personal identity—to stand in the place of the ego in cognition—the self which is immediate individual existence—completes it.

Still Brown is consistent: he says that consciousness is not a distinct state of mind, and he never treats it, nor analyses it as such; but Sir W. Hamilton, while he denies its distinctness, treats it and analyses it as distinct. 'It is impossible,' he says, in his 'Essay on Perception,'\* 'in the *first* place, to discriminate consciousness from all the other cognitive faculties, or to discriminate any one of these from consciousness; and, in the second, to conceive a faculty cognisant of the various mental operations, without being also cogni-

\* *Discussions*, p. 47.

sant of their several objects. *We know*; and *we know that we know*:—these propositions, *logically* distinct, are *really* identical; each implies the other.’ But again in his ‘Lectures on Metaphysics,’\* he says, ‘But though consciousness cannot be logically defined, it may, however, be philosophically analysed. This analysis is effected by observing and holding fast the phenomena or facts of consciousness, comparing these, and from this comparison evolving the general conditions under which alone an act of consciousness is possible.’ And again, ‘Though the simplest act of mind, consciousness thus expresses a relation subsisting between two terms. These terms are, on the one hand, an I, or self, as the subject of a certain modification,—and, on the other, some modification, state, quality, affection, or operation belonging to the subject. Consciousness, thus, in its simplicity, necessarily involves three things,—1st, A recognising or knowing subject; 2nd, A recognised or known modification; and, 3rd, A recognition or knowledge by the subject of the modification.’ It is singular how anything which

\* *Lectures*, Vol. I, p. 192.

cannot be discriminated from a number of other things can be so easily laid hold of and subjected to investigation!

Sir W. Hamilton gives two reasons for his opinion that consciousness is not a distinct mental state; viz. that, in Reid's view, 'in the *first* place, consciousness co-extensive with *all* our cognitive faculties, would yet be made co-ordinate with each; and, in the *second*, two faculties would be supposed to be simultaneously exercised about the same object, to the same intent.' But a very brief consideration of his statements on the subject will show how erroneous and self-contradictory are his opinions.

In analysing consciousness in his Lectures, the first series of conclusions at which he arrives is,\* 1st, That consciousness is an actual, or living, and not a potential, or dormant knowledge; 2nd, That it is an immediate and not a mediate knowledge; 3rd, That it supposes a discrimination; 4th, That it involves a judgement; 5th, That it is possible only through memory.' The first and second of these conclusions involve a pal-

\* *Lectures*, Vol. I, p. 202 *et seqq.*

as, not knowledge

pable absurdity, they make consciousness to be knowledge, and, therefore, consciousness includes the ego and the state of mind which together form the absolute in cognition! The remaining three conclusions are singular instances of putting the cart before the horse. 'The third condition of consciousness,' he says, 'which may be held as universally admitted, is that it supposes a contrast,—a discrimination; for we can be conscious only inasmuch as we can be conscious of something; and we are conscious of something only inasmuch as we are conscious of what that something is,—that is, distinguish it from what it is not.' (This is simply the Relativity of our Knowledge in the third meaning given to the phrase, which we have already set aside. How can we discriminate between two things until we know them both? And how can we ever know them both, if we cannot know either until we can discriminate between them?) And when we do discriminate between them, what is the discrimination? a judgement, a proposition, the enunciation of a fact, and how do we know the fact without we have another fact

to discriminate it from? The only possible way of knowing anything would be by knowing two things at once, and *then* we don't know them, because we cannot know the relation between them unless we have another relation to discriminate it from, and so on *ad infinitum*. The possibility of ever being conscious of anything in this fashion, when it must be known in order to be discriminated, discriminated in order to be known, is, we were going to say, at least problematical and unintelligible, but we may safely use stronger terms, and say instead, that it is impossible and absurd.\*

‘The fourth condition of consciousness,’ he says, ‘which may be assumed as very generally acknowledged, is, that it involves a judgement. A judgement is the mental act by which one thing is affirmed or denied of another. This fourth condition is, in truth, only a necessary consequence of the third,—for it is impossible to discriminate without judging,—discrimination or contradistinction being in fact only the denying one thing of

\* See Ferrier's *Institutes of Metaphysics*, Epistemology, Prop. I. § 8.

another.' It would be more in accordance with the correct use of language to say that the fourth condition is only the third in other words, than that it is the consequence of it.

'The fifth undeniable condition of consciousness is memory. This condition, also, is a corollary of the third. For without memory our mental states could not be held fast, compared, distinguished from each other, and referred to self. Without memory each individual, each infinitesimal, moment in the mental succession would stand isolated from every other,—would constitute, in fact, a separate existence. The notion of the ego, or self, arises from the recognised permanence, and identity of the thinking subject in contrast to the recognised succession and variety of its modifications. But this recognition is possible only through memory. The notion of self is, therefore, the result of memory. But the notion of self is involved in consciousness, so therefore is memory.' First of all, let us remark that this leaves the beginning of our consciousness quite unexplained, on the ground of our being thus obliged to have two consciousnesses at the

same time, a result which Sir William seems never to have dreamed of. Then, let us quote in connection with it what he has previously said concerning the ego.\*

‘I can conceive myself to exist apart from every organ. But if I try to conceive myself existent without a thought—without some form of consciousness—I am unable. This or that thought may not be perhaps necessary; but of some thought it is necessary that I should be conscious, otherwise I can no longer conceive myself to be. A suspension of thought is thus a suspension of my intellectual existence; I am, therefore, essentially a thinking—a conscious being; and my true character is that of an intelligence,—an intelligence served by organs.

‘But this thought, this consciousness, is possible only in and through the consciousness of self. The self, the I, is recognised in every act of intelligence, as the subject to which that act belongs. It is I that perceive, I that imagine, I that remember, I that attend, I that compare, I that feel, I that desire, I that will, I that am conscious’ (why ‘I that am con-

\* *Lectures*, Vol. I, p. 166.

scious,' if consciousness is not a distinct state of mind, but a part of every other? ) 'The I, indeed, is only manifested in one or other of these special modes' (then consciousness is, after all, a special mode); 'but it is manifested in them all; they are all only the phænomena of the I, and, therefore, the science conversant about the phænomena of mind is, most simply and unambiguously, said to be conversant about the phænomena of the *I* or *ego*.'

Now if we cannot have a possible consciousness without the ego, and if we cannot be conscious of the ego without the co-existence of a consciousness other than the mere consciousness of the ego, how is it then we can *first* have the consciousness of the ego, and *then* the consciousness of the thought, and refer the latter to the former by memory, when each of them, *per se*, must be nothing? Or how, on the ground that consciousness necessarily implies memory, do we ever, first of all, get the simple consciousness of the ego, for the memory to recall? for, *ex hypothesi*, there must have been memory in that first consciousness. It reminds one of, 'I knew



that he knew, that I knew, that he knew, that I knew, &c., &c.,' only that the latter amusing series may have an end, while the continual involution of consciousness and memory could never have a beginning, and both must be alike eternal. ('The notion of the ego or self, arises from the recognised permanency, and identity of the thinking subject in contrast to the recognised succession and variety of its modifications.') But this recognition is possible only through memory. The notion of self is, therefore, the result of memory.' This is not the ego, or self, of cognition—the immediate individual existence; it is the self of personal identity,—the belief that the ego of our present consciousness is the same in its individuality as the ego of all our past consciousnesses; not the self of present instantaneous existence, but the self of continuous individually-unchanged existence; it is not even the '*I* or *ego*,' that he has previously spoken of as manifested in the special modes of mind, and which is, like Professor Ferrier's, a confusion of the ego in cognition, with the mind itself. He elsewhere gives the complete and contradictory doctrine in a

single sentence: 'In the act of perception, consciousness gives, *as a conjunct fact*, an ego, or mind, and a non-ego, or matter, *known together*, and *contradistinguished from each other*.' The only mistake here is in equating the ego with mind, and the non-ego with matter: but surely the language implies two things absolutely the contraries of what he has already stated, viz: 1st, That consciousness is a state of mind *per se*,—consciousness gives two things as a conjunct fact—the ego and the non-ego. 2nd, The ego and non-ego are *known together*, not the non-ego known directly by consciousness, and the ego remembered.

Returning to the objections which he makes to Reid's view of consciousness: the first is, that 'consciousness co-extensive with *all* our cognitive faculties would yet be made co-ordinate with each.' What is the force of this objection? Is there any contradiction implied in the fact that of a set of co-ordinates one should be a constant and invariable, and the others variable? that one should be equal in extent to all the others put together, while it ranks with them in kind? Is there any improbability in it? On the contrary, in

cognition, according to Sir W. Hamilton's own showing in one of the passages which we have already quoted (though we need hardly say, he contradicts it himself in another), and according to the correct and undeniable view of the matter which we have already given, is not the subjective a constant factor of every cognite, and also co-ordinate with, and impossible to conceive as existing without, the objective, while the latter varies in each individual cognite ?

The second objection, that 'two faculties would be simultaneously exercised about the same object, to the same intent,' is equally worthless. If we take Sir W. Hamilton's own view that consciousness is not a separate faculty, but that all our states of mind are consciousnesses, then every state of mind must consist of two parts, perfectly distinguishable, though not separable ; the one part giving us the presentation, mediate or immediate, which is proper to that faculty, the other the immediate knowledge of itself. If there were no consciousness which was not a consciousness of a state of mind, this theory might work ; it would be substantially, though not formally,

the same as Reid's. But there is in all cognition, besides a state of mind, the ego, and when we have the consciousness of a cognite, we are conscious of two things, one of which is not a state of mind, but an existence, a fact, and to be conscious of that,—and we are always conscious of it,—we must accept Reid's opinion that consciousness is a separate faculty of the mind. But its action is not the same as that of memory, or any other power of mind, or all the other powers of mind put together. It is not exercised about the same object, or to the same intent. Memory, for instance, has for its object the representing a past thought, a past cognite of which we have been conscious, it restores again that cognite to thought; while, even according to Sir W. Hamilton, consciousness can only give us immediate knowledge; the objects of the two faculties differ, therefore, in point of time; the object of memory is past, and the object of consciousness present. Were consciousness and memory one single state of mind, one part of it would have its object in the past, the other in the present; it would be a state of mind divided against itself. It is true that the ob-

ject of a state of mind cannot be separated from the state of mind, that memory cannot exist apart from what is remembered, judgment without at least a mental enunciation of the resultant proposition, desire without an object desired, and so on; and, therefore, in one sense, we not only may but must say that consciousness is conversant with the objects of every state of mind of which we are conscious, but they are not its immediate objects, they are only its objects mediately, through the state of mind. Consciousness is inseparable from its object, be that object the ego, or a state of mind, but it is distinguishable and distinct from them, and is no more part of them than they are parts of their objects, because they are, precisely in the same way, inseparable, though distinct from them.

Another very decided opinion of Sir W. Hamilton with regard to consciousness is identical with that of Reid; viz. that consciousness always demands and obtains implicit belief in its presentations—in the knowledge which it affords, in so far as it affords it. This doctrine, as guarded and limited by him, is one, we may say, that is universally

received. 'The facts of consciousness,' he says,\* 'are to be considered in two points of view; either as evidencing their own ideal or phænomenal existence, or as evidencing the objective existence of something else beyond them. A belief in the former is not identical with a belief in the latter. The one cannot, the other possibly may, be refused. In the case of a common witness we cannot doubt the fact of his personal reality, or the fact of his testimony as emitted,—but we can always doubt the truth of what his testimony avers. So it is with consciousness.' It would be hard to reconcile this with the doctrine that all our states of mind are consciousnesses in themselves, and, therefore, that while consciousnesses, i. e. our states of mind, are to be believed, still they may give unreliable evidence. But we quote it here more particularly for use in the further consideration of the subject of the Relativity of our Knowledge.

We have before said that we are conscious of external objects *mediately*, through perception and our bodily states, which last we may denote by the collective name, 'Sensations;'

\* See also *Lectures*, Vol. I, p. 265.

of states of mind, *immediately*, and, therefore, of their objects *mediately* through them ; but of the ego, or self,—the ego of cognition—our immediate individual existence—*immediately* without any intermediate state of mind. The ego is a fact of which pure consciousness alone can give us knowledge ; consciousness cannot remember, consciousness cannot judge, imagine, will, desire, perceive, but consciousness tells us that *we are* ; consciousness, and nothing but consciousness. Classing, then, the objective in cognition, in order of proximity, we have, in the first degree, 1st, The ego, known immediately ; and 2nd, The mental states, also known immediately. In the second degree, included in the latter division of the immediate objective in cognition, we have our sensations, our judgements, our remembrances, and in short all the other objects of our mental states, which are presented to us *mediately* through those states respectively. And in the third degree we have the objects of our sensations, the external world, presented to us *mediately* through sensation and perception.

Now a very obvious question arises here, What is the use of supposing a state of mind—

perception—between consciousness and our sensations? Why cannot we be conscious of our sensations at once? The relation between a mental state and a bodily state is unknown and inscrutable: is then the introduction of an imaginary state of mind, called perception, between the sensation and the consciousness any aid to us in making that matter clearer? Is it not just as difficult to explain the connection between the sensation and perception, as between the sensation and consciousness? Why burthen us with perception at all? Answer:—It is not with any idea of explaining, either altogether or even in part, the connection between mind and matter that the existence of perception is considered necessary; it is in order to be in accordance with the phænomena that we find actually to exist, that we require to admit that we are not immediately conscious of our sensations. Instances are of continual and familiar occurrence that can leave no doubt that we are frequently unconscious of our sensations. In cases of absence of mind, as they are called, persons in daylight, with their eyes wide open, are often utterly unconscious of the scenes around



the unconscious of things present to  
us

*Sir W. Hamilton and Mr. Mill.* 147

them, and carried away by their imagination, in connection with the subject on which their mind is engaged, suppose that they are in a totally different place. Do not the external objects form the usual picture on the retina? They must do so. Does the optic nerve not act? It must do so. Was the sensation not complete? It must have been so. (How then are they not conscious of it?) Consciousness is always ready, always at hand, the mind is never in any mode without our being conscious of it; throughout the thought of a lifetime, we are always conscious of the ego; if we are immediately conscious of our sensations, how can they alone of all the objects of our immediate consciousness exist unobserved and unrecorded by it? The only satisfactory answer to this question is, that they are not the immediate objects of our consciousness, that there is an intermediate state of mind of which they are the immediate objects, and that just as we are not conscious of a remembrance when we do not remember, of a volition when we do not will, or of a discrimination when we do not judge, so we are not conscious of a sensation which we do not perceive. We do

not always remember, always imagine, or always desire, but when we remember, imagine, or desire, we are always conscious of doing so, and were we immediately conscious of our sensations, we should be conscious of them all without exception. The fact is, that we are not immediately conscious of them, we are immediately conscious of our perceptions of them only, and the mind does not always perceive.))

Now we have to consider a more remarkable doctrine concerning our knowledge of external things than that which we have just commented on; for the latter is a natural enough idea of a feeble analyst, while this is one of the most singular, wilful perversions, not of what is recondite and difficult of analysis, but of what is patent and acknowledged by its very perverters, that has ever appeared, even in philosophy. It is not, like the denial of perception, a point that may fairly be contested, but it is, on the one hand, admitting, what it is impossible to deny, the existence of sensation at least, if not, to render it still more absurd, the existence both of sensation and perception; and, then, on the other, in defiance

of this admission, asserting that we are *immediately* conscious of external objects. Sir W. Hamilton's whole theory when fully laid down is:—We know external things through the senses; a certain portion of our knowledge of them is dependent on the things themselves, another portion on the media that may or may not intervene between them and the organs of sense, a third portion on what the organ of sense does with what it gets, and a fourth portion on what the mind makes out of the sensation, and, N.B., all the time the original thing that we are dealing with is not absolute matter, not the *ὕποκειμενον* of ancient philosophy, nor the *νοούμενον* of the transcendentalist, but only qualities or modes of matter, and the result of this knowledge of these qualities, and of nothing but these qualities, acquired in this, anything but direct or independent manner is,—THAT WE ARE IMMEDIATELY CONSCIOUS OF CERTAIN NECESSARY QUALITIES OF MATTER,—that we naturally, really, and unmistakeably by consciousness, which is always to be believed, and must always be believed, have a direct knowledge of certain primary qualities of

matter from which we necessarily infer the material *substratum*, the material ὑποκείμενον, the νοούμενον of matter, the absolute substance of matter itself! How any mind with any power of logical thought could ever once promulgate such a patent contradiction, with the absurdity and inconsistency of it so palpably evident, seems strange, but how it could recur to it, and formally and frequently repeat the process, surpasses belief. That *others* should accept it upon the strength of the name of the promulgator is not so singular. When a man has a certain celebrity, especially in such matters as philosophy, his truth and his consistency lie almost entirely, for a time at least, in his own keeping, the bulk of his followers *dare not* dispute his authority, must affect to see a hidden meaning in his extremest nonsense, and to be enraptured with whatever he may be pleased to vouchsafe to them.

Reid, who was followed by Stewart, does not manage to involve in his Realism more than one contradiction, the noninterference of sensation with the immediacy of the knowledge of matter given by consciousness, and

he says in doing so, that he stands alone among philosophers. Sir W. Hamilton proposes to follow him, and does follow him in so far as assertion goes, but in all his reasoning, in all his analysis and exposition of every part, he is, what he himself calls, a Cosmothetic Idealist, the professor of a set of opinions, which viewed in the aggregate he holds in abhorrence. The term 'Cosmothetic Idealist' is one of his own, a very useful one too, and to explain what it means we cannot do better than quote his words: while at the same time we shall give his views in his character of a Natural Realist, and his opinion in that character of what are the views of those Idealists among whom he appears in the other. 'Mankind in general,' he says,\* 'believe that an external world exists, only because they believe that they *immediately know it as existent*. As they believe that they themselves exist, because conscious of a *self* or *ego*; so they believe that something different from themselves exists, because they believe that they are also conscious of this *non-self* or *non-ego*.

‘ In the first place, then, it is self-evident,

\* *Discussions*, Essay on Idealism, p. 193.

that the existence of the external world cannot be doubted, if we admit that we do, as we naturally believe we do,—know it immediately as existent. If the fact of the *knowledge* be allowed, the fact of the *existence* cannot be gainsayed. The former involves the latter.

‘ But, in the second place, it is hardly less manifest, that if our natural belief in the *knowledge* of the existence of an external world be disallowed as false, that our natural belief in the *existence* of such a world can no longer be founded on as true. Yet, marvellous to say, this has been very generally done.

‘ For reasons to which we cannot at present advert, it has been almost universally denied by philosophers, that in sensitive perception we are conscious of an external reality. On the contrary, they have maintained, with singular unanimity, that what we are immediately cognitive of in that act, is only an *ideal object* in the mind itself. In so far as they agree in holding this opinion, philosophers may be called *Idealists* in contrast to mankind in general, and a few stray speculators who may be called *Realists*—*Natural Realists*.

‘ In regard to the relation or import of this

ideal object, philosophers are divided; and this division constitutes two great and opposing opinions in philosophy. On the one hand, the majority have maintained that the ideal object of which the mind is conscious, is vicarious or representative of a real object, unknown immediately, or as existing, and known only mediately through this its ideal substitute. These philosophers, thus holding the existence of an external world—a world, however unknown in itself, and, therefore, asserted only as an hypothesis, may be appropriately styled *Cosmothetic Idealists*—*Hypothetical* or *Assumptive Realists*. On the other hand, a minority maintain, that the ideal object has no external prototype; and they accordingly deny the existence of an external world. These may be denominated the *Absolute Idealists*.

‘ Each of these great genera of Idealists is, however, divided and sub-divided into various subordinate species.

‘ The *Cosmothetic Idealists* fall primarily into *two* classes, inasmuch as some view the ideal or representative object to be a *tertium quid* different from the percipient mind as from the represented object; while others

regard it as only a modification of the mind itself,—as only the percipient act considered as representative of, or relative to, the supposed external reality. The former of these classes is again variously subdivided, according as theories may differ in regard to the nature and origin of the vicarious object; as whether it be material or immaterial,—whether it come from without or rise from within,—whether it emanate from the external reality or from a higher source—whether it be infused by God or other hyperphysical intelligences, or whether it be a representation in the Deity himself,—whether it be innate, or whether it be produced by the mind, on occasion of the presence of the material object within the sphere of sense, &c. &c.

‘Of *Absolute Idealism* only *two* principal species are possible: at least, only two have been actually manifested in the history of philosophy;—the *Theistic* and the *Egoistic*. The former supposes that the Deity presents to the mind the appearances which we are determined to mistake for an external world; the latter supposes that these appearances are manifested to consciousness, in conformity to certain un-



known laws by the mind itself. The Theistic Idealism is again subdivided into *three*; according as God is supposed to exhibit the phenomena in question in his own substance,—to infuse into the percipient mind representative entities different from its own modification,—or to determine the *ego* itself to an allusive representation of the *non-ego*.

‘ Now it is easily shown that if the doctrine of Natural Realism be abandoned,—if it be admitted or be proved, that we are deceived in our own belief of an immediate knowledge of aught beyond mind; then, Absolute Idealism is a conclusion philosophically inevitable, the assumption of an external world being now an assumption which no necessity legitimates, and which is therefore philosophically inadmissible. On the law of parsimony it must be presumed null.

‘ It is, however, historically true, that Natural Realism has been abandoned by philosophers for Cosmothetic Idealism, before the grounds on which this latter doctrine rests were shown to be unsound. These grounds are principally the following :—

‘ (1).—In the *first* place, the natural *belief*

*in the existence* of an external world was allowed to operate even when the natural *belief of our immediate knowledge* of such a world was argued to be false. It might be thought that philosophers, when they maintained that one original belief was illusive, would not contend that the other was veracious,—still less that they would assume, as true, a belief which existed only as the result of a belief which they assumed to be false. But this they did. The Cosmothetic Idealists all deny the validity of our natural belief in our knowledge of the existence of external things; but we find the majority of them, at the same time, maintaining that such existence must be admitted on the authority of our natural belief of its reality. And yet, the latter belief exists only in and through the former; and if the former be held false, it is, therefore, of all absurdities the greatest to view the latter as true. Thus Descartes, after arguing that mankind are universally deluded in their convictions that they have any immediate knowledge of aught beyond the modifications of their own minds; again argues that the existence of an external world must be admitted,—because if it do not

must either be a Natural Realist or an  
Absolute Idealist

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exist, God deceives, in impressing on us a belief in its reality; but God is no deceiver; therefore, &c. This reasoning is either good for nothing or good for more than Descartes intended. For on the one hand, if God be no deceiver, He did not deceive us in the belief that we know something more than mere modes of self; but then the fundamental principle of the Cartesian philosophy is disproved; and if, on the other hand, this position be admitted, God is thereby confessed to be a deceiver, who, having deluded us in the belief on which our belief of an external world is founded, cannot be consistently supposed not to delude us in this belief itself. Such melancholy reasoning is, however, from Descartes to Dr. Brown the favourite logic by which the Cosmothetic Idealists in general attempt to resist the conclusion of the Absolute Idealists. But on this ground there is no tenable medium between Natural Realism and Absolute Idealism.'

If this be true, Sir William, being, in one character, a Cosmothetic Idealist, must, in that character, be an Absolute Idealist, and being, in the other character, a Natural Realist, he

must combine in himself, what he would probably have called, the poles of thought on the subject.

The error throughout this argument is the tacit assumption that, we cannot believe what we do not know *immediately* by consciousness. According to the Cosmothetic Idealists, we do not know the external world immediately by consciousness, and, therefore, says Sir William, we cannot believe in its existence. We believe in consciousness, we cannot help believing in consciousness, but that absorbs all belief, and leaves no more to spare for anything else. Of course generally Sir W. Hamilton does not hold this opinion, and of course, also, he asserts the contrary in other places, and even makes us believe in what we cannot think.

The Natural Realists do not deny sensation. Even Sir W. Hamilton is obliged to say\* 'The Primary (Qualities) are known under the condition of sensations; the Secundo-primary in and along with sensations; the Secondary in consequence of sensations. The Primary are thus apprehended objects; the Secondary, inferred powers; the Secundo-

\* *Dissertations on Reid*, p. 857, b. *et passim*.

primary, both apprehended objects and inferred powers. The Primary are conceived as necessary and perceived as actual; the Secundo-primary are perceived and conceived as actual; the Secondary are inferred and conceived as possible.' Thus there is a part of our knowledge of the external world known 'under the condition of sensations,' and this is the same thing as being immediately conscious of it! (The difficulty is obvious: if we are only conscious of the external world through our sensations, we cannot be *immediately* conscious of it, but of our sensations only, and as our sensations, according to Sir W. Hamilton, and the other Natural Realists, are not external, we are a long way from being immediately conscious of anything external; so the Primary qualities are brought into play—qualities which are objects of the understanding, which 'may be deduced *à priori*, the bare notion of matter being given.' ) We know them *as sensations*, but not *by sensation*, and we are immediately conscious of them because we can deduce them from the bare notion of matter. Deduction being an operation of the mind,

surely this looks like the very essence of Absolute Idealism. We form certain deductions, and either because we fancy them to be sensations or because they agree with our sensations—for this is the only way we can explain their being ‘known *under the condition of sensations*’—we are immediately conscious of them. People must get into a mess, if they insist on attempting to blot out a reality, and all the contrivance in the world is impotent before the fact that our knowledge of the qualities of matter can only come through and by sensation. *How* we get our knowledge of matter through sensation is an interesting subject of inquiry, but it in no way affects the question of the Relativity of Knowledge. That we do get it through sensation and only can so get it, is all that we have here to look to. It is amusing to see the fate of the Secundo-primary and Secondary qualities when we test them with Sir W. Hamilton’s argument as applied to Cosmo-thetical Idealism: the Secundo-primary must stand on as good a footing as the Primary, being both perceived and conceived as actual, and what is *always* conceived as actual is

surely conceived as necessary ; while the Secondary go by the board at once, for we have no immediate knowledge of their existence, and therefore cannot believe in it.

What are the Primary Qualities of matter ?

1. *Extension*, 2. *Divisibility*, 3. *Size*, 4. *Density or Rarity*, 5. *Figure*, 6. *Incompressibility Absolute*, 7. *Mobility*, 8. *Situation*.

What are the Secundo-primary ? They are those which arise from *Gravity*, *Cohesion*, *Repulsion*, and *Inertia* ; such as, *heavy* and *light*, *hard* and *soft*, *tough* and *brittle*, *fissile* and *infissile*, *resilient* and *irresilient*, *moveable* and *immoveable*, &c. &c., in all fifteen pairs.

What are the Secondary ? Those possible qualities, which we may disbelieve, or rather *must* disbelieve ; only *colour*, *sound*, *flavour*, *heat*, and the like, which ‘are not in propriety qualities of body at all’ !

‘The Primary Qualities,’ says Sir W. Hamilton,\* ‘may be *deduced à priori*, the bare notion of matter being given ; they being, in fact, only evolutions of the conditions which that notion necessarily implies : whereas the Secundo-primary and Secondary must be in-

\* *Dissertations*, p. 846, b.

*duced à posteriori*: both being attributes contingently superadded to the naked notion of matter. The Primary Qualities thus fall more under the point of view of Understanding, the Secundo-primary and Secondary more under the point of view of Sense.

‘Space or Extension is a necessary form of thought. We cannot think it as non-existent; we cannot but think it as existent. But we are not so necessitated to imagine the reality of aught occupying space; for while unable to conceive as null the space in which the material universe exists, the material universe itself we can, without difficulty, annihilate in thought. All that exists in, all that occupies, space, becomes, therefore, known to us by experience; we acquire, we construct, its notion. The notion of space is thus native or *à priori*; the notion of what space contains, adventitious or *à posteriori*. Of this latter class is that of Body or Matter.’

So we can deduce the Primary Qualities, which all depend upon space or extension, ‘a necessary form of thought,’ from ‘the bare notion of matter.’ But what is ‘the bare notion of matter’? Where and when are we to get it? Who has it? It is what we



want but cannot find; what even Sir W. Hamilton admits to be denied to us. If we had no sensations, and were given the bare notion of matter, the idea of its extension, &c.; might no doubt be deducible from it; but as we get our ideas of extension, &c., without the bare notion of matter, and never get, and never can get, the latter at all, their deducibility from it seems to be a thing of little moment. Besides, if matter is matter and not something else, i. e. if it is as we know it, and not as we do not know it, there is no possible reason why all the Secundo-primary and Secondary Qualities may not be just as likely to be deducible from that bare notion, whatever it might be if we could get it, as their more exalted brethren; for we can say no more about the Primary than that it is not impossible that they might be deduced from it. *Heat*, i. e. a definite temperature; *colour*, i. e. a certain power of reflecting or refracting light; *gravity*, i. e. a certain power of attraction in every portion of matter on every other portion of matter, proportional to the mass and varying as a certain function of the distance, &c.; are as necessary to any notion *we* can form

of matter, as extension, size, or any other of what are enumerated as the Primary Qualities. *We* cannot fancy matter, for instance, utterly destitute of *heat*; the only way in which we can extirpate the knowledge of heat from the universe is by imagining everything of an uniform and unalterable temperature; we cannot imagine any portion of matter so cold that it could not be colder, nor so hot that it could not be hotter. *Colour* seems to have puzzled Sir W. Hamilton most; he evidently thought that because it was not necessary that any individual thing should be blue, or black, or green, but might be any of them, that, therefore, it might be none of them: it is singular that a parity of reasoning did not lead him to see in the same way that because matter might either be a sphere, or a cube, or a pyramid, or any other of the infinite variety of forms which can exist in space of three dimensions—‘Trinal Extension,’—Figure is by no means a necessary condition of matter. Perhaps he thought *colour* was a contingent quality, because when there is no light there is no *colour*, but that does not deprive matter of the quality one whit more

than if mankind were deprived of the sense of sight. Some of his Primary Qualities, too, might be knocked off in the same way; if *force* did not exist, what would become of *motion*, and therefore of the quality of *mobility*?

What is Incompressibility Absolute—compressibility and incompressibility (relative) are Secundo-primary, this is a Primary Quality? ‘We might call it *Ultimate* or *Absolute Incompressibility*. It would be better, however, to have a positive expression to denote a positive notion, and we might accordingly adopt, as a technical term, *Autantitypy*. This is preferable to *Antitypy*, (*ἀντιτυπία*), a word in Greek applied not only to this absolute and essential resistance of matter, *qua* matter, but also to the relative and accidental resistances form, cohesion, inertia, and gravity.’\* Had Sir William given these three sentences at the commencement of his paragraph, how intense would have been the excitement to know what this wonderful quality could be! But, like an unartistic story-teller, he lets out the point of the joke too soon, and has to relate the details that should have stimulated their curiosity to

\* *Dissertations*, p. 847, b.

listeners, whom his premature revelation has rendered *insoucians* and apathetic. He commences with an explanation that should certainly have been kept till after the *Autantitypy*:—‘The negative notion (i. e. negative relatively to the notion of Extension),—the impossibility of conceiving the compression of body from an extended to an unextended, its elimination out of space—affords the positive notion of an insuperable power in body of resisting such compression or elimination.’ All this simply means, that matter is matter,—that extension is a necessary quality of matter, and so we cannot imagine matter doing without it,—what is extended cannot be imagined as unextended, because we cannot imagine a thing to be that which it is not, by the law of contradiction; but this impossibility of thought is given as a Primary Quality of matter! Without going into the Physical question of the compressibility of matter, we may safely say that if any one ever dreamt that they could literally squeeze matter into nothing, at any rate they would not have been mad enough when they had done so to call it matter any longer. It is a form of the old question of the possible destruction

of matter by anything short of the *fiat* of the Almighty ; it was believed in affirmatively for ages by many philosophers, and only fairly negated by the researches and discoveries of modern science. Compressing matter was but one of many fancied ways of getting rid of it, and we should say in appearance the least likely to succeed ; it may have been on that account that it was the most obvious to Sir W. Hamilton.

*Situation* is not a *quality* of matter ; we can imagine a single particle of matter as existing alone in infinite space, without any alteration of its qualities as matter, but that particle so existing would have no situation.

In the passage we have already quoted, on the Deduction of the Primary Qualities, Sir W. Hamilton says, ‘ Space or Extension is a necessary form of thought. We cannot think it as non-existent ; we cannot but think it as existent.’ Now confusion is apt to arise here from the use of the term extension as synonymous with space, and at other times as the property of filling space—a quality of matter. It is better to confine it to the latter meaning only, and thus the notion of space is evidently

the result of the notion of extension:—Extension is a quality of matter, the requirement by matter of room in which to exist,—Space is the room in which matter, necessarily extended, does or can exist. The relation between the notions of extension and space is necessary; and, therefore, when we speak of the notion of space we must always conceive the notion of extension as underlying it, and keeping that in mind we shall commit no error by suppressing the verbal mention of the latter, and using the term Space, not as ‘Space or Extension,’ but as Space necessarily implying the previous notion of extension. With this reservation we agree with Sir William that the notion of space is a necessary form of thought, i. e. of thought which has matter for its object. The idea of space is innate in the mind, and, latent there, is evoked by sensation.

As we never had any knowledge of a single particle of matter, i. e. a portion of matter so small that it can have no parts—*infinitely* small,—existing apart from all other matter, nor of any matter as existing only for an infinitely short period, we say, that, *in our cognition*, space, time, and number are the

conjugates of material existence. Time and number are also conjugates of spiritual existence, but we cannot affirm that of space; we can imagine spiritual existence without space, and we have nothing to lead us to the conclusion that space is connected with the existence of the human intelligence. The material sensation is, therefore, necessary to evoke the notion of space. But with time and number it is otherwise, two consecutive thoughts of which the first is remembered, are all that is required to evoke *their* notions: we cannot have two consecutive consciousnesses, without getting the ideas of time and number, unless the first be forgotten as soon as it exists.

But it is not of space as the matured notion, the notion of room in which matter *may* exist, —as more or less extended or as infinite—that we predicate this: it is only of space as room in which more than one material object, or more than one part of a material object, do exist without being in the same place; or the mere fact that two material objects, or two parts of a material object, do not exist in the same

place, and the necessary notion of the room in which they exist apart.

Similarly, time as innate is not a notion of years, or months, or days, or hours, or minutes, or seconds, but only of the fact that of two consciousnesses one was subsequent to the other, i. e. of mere consecutive existence; and it is from this notion of consecutive existence that the notion of continuous existence flows, for we can have no idea of any continuous existence unless we can measure it by a series of consecutive existences. The notion of *succession* underlies the notion of *time*, exactly as the notion of extension underlies the notion of space.

The innate notion of number has nothing to do with tens, or dozens, or millions, or any other of the wonders of numeration, it is simply the idea of plurality—of the more-than-oneness of two or more thoughts or things, or two or more parts of a thing. The notion of *plurality* underlies the notion of *number*, precisely as the notions of extension and succession underly those of space and time.

Number as a conjugate of material existence, cannot exist without either space or



time: nor can the notions of space or time be evoked, without also evoking the notion of number.

The notions which we have of these conjugates of existence are, when we first come to think of them, already much too complicated by inductions and deductions for us to consider them as innate ideas, or as necessary forms of thought in the state in which we find them. We can only consider them as innate in their most elementary form, in what we may call the lowest stage of their existence; we can only grant them their respective *minima* of conceivable existence.

But how do we know that they are *innate*? How can we prove it? So far it is mere assertion, and the reverse is just as likely to be true. Sad to say, we cannot prove *directly* that even the *minimum* notions of space, time, and number are innate; but we can do what is quite as good—we can defy any one to prove logically that they are empirical—that they are purely the effect of our sensations apart from any latent idea of them in the mind—we can defy any one to prove this logically without a *petitio principii*, without reasoning

in a vicious circle—without virtually taking for granted in one premise of his syllogism the innate existence of the very notion of which he is trying to prove the experimental origin.)

To return to the Primary Qualities:—*Size* and *Figure* are modes of *extension*, they are the conditions under which it necessarily exists, and they are not qualities of matter, only the conditions of the existence of one of its qualities.

*Situation* is a relation of material objects, or of the parts of a material object, dependent on *space* and *number*, and neither is it a quality of matter.

Sir W. Hamilton does not give *Duration*, or *Plurality*, as qualities of matter, but of matter as known to us, i. e. of matter as it is, they are qualities as much as extension is.

The notion of *Theoretical Divisibility* is the result of reasoning on matured notions of *space* and *number*, or, if it be the divisibility of *duration*, on those of *time* and *number*.

The notion of *Material* or *Physical Divisibility* is empirical, the result of experience.

*Density* is first known from a deduction

comparing weight with size, and in its true form, the relation of mass to magnitude of extension, is the result of reasoning.

The notion of *Mobility* is purely empirical.

These compounds of *à priori* ideas and sensations, and those other results of reasoning on them, and on our experienced sensations generally, being set aside, where are the 'Primary Qualities of Matter'? Where are those qualities which we know immediately, and which all men, therefore, must know and know equally well whenever they experience them? What is there in any one quality of matter that enables us to know it more *immediately* than another? Before we can know one of them *immediately* we must know it without the aid of the senses at least—is that possible of any one of them?

The only ultimate object that we are immediately conscious of is the ego in cognition, the self or I, the one constant element of all our knowledge. We are immediately conscious of states of mind, but as objects of consciousness they are not ultimate, their objects we are conscious of mediately through them; and the object of perception which is

ultimate to our consciousness is not external matter, but only our sensations of it; and, unless a philosopher is prepared either to deny sensation altogether, or to assert that our consciousness goes beyond sensation,—i. e. by the aid of matter becomes cognisant of other matter—a doctrine that either demands, on the one hand, the materialism of the consciousness, or, on the other, a general pervading of matter by spirit, a species of pampsychism—it seems strange that he should insist on our immediate consciousness of matter. There must be some pressing reason for so unaccountable a fact. It is simply because some other philosophers, equally wise, have declared that as we have no immediate consciousness of anything but the ego (they generally forget this though), and our states of mind, there is probably no matter at all, and if there be no matter at all, there is probably nothing at all, at all. These gentlemen, as is well known, are called Sceptics, and because their doctrines have not the slightest chance of ever doing any harm to any one but themselves, and have never managed to make any progress in the world, they have been, and

always will be, a source of dread and terror to all right-thinking people.

Let us see how far Scepticism is favoured by Cosmothetic Idealism ; —What is the difference as to the reality of an external world between Natural Realism and it ; between 1st, Supposing that we are immediately conscious of the external world ; and 2nd, Supposing that we are only mediately conscious of it—say, to put the matter in its most aggravated, though its only correct, form, through both sensation and perception ? First of all, however, we may premise that speaking of the self as mind, *not* as the ego in cognition, the body is part of the external world, and our sensations being bodily are simply external material phenomena. Therefore, pain, fatigue, the feeling of muscular effort, the feeling of rest, and many other sensations pertaining to the body which spring from real senses—though not from the five to which philosophy, more constant than she was to the three elements, has given undisputed dominion for so many centuries—are known to us just in the same way as its shape, its colour, &c., which we are informed of by the five gene-

rally accredited sources; all the same as if the body were any other externality. But the Natural Realists never attend to this; there is not one of them who anywhere says anything that would lead to the supposition that he considered his body more external than his memory or his judgement. 'The external world,' in their meaning of the term, is, what is not self, *when self means the mind and body together.*

Now the adding either one intermediate step — sensation,— or two — sensation and perception,—only makes this difference in our knowledge—the possibility of error in it. Consciousness, according to all philosophers—except the most extravagant sceptics, and some German transcendentalists, who know the unknown and the unknowable, in a way that mere consciousness can never pretend to—is true at all times, and always believed in; therefore, if we are immediately conscious of external objects, our knowledge of them must be always absolutely correct, except in so far as they are *false in themselves*; a doctrine which in the constant attempts to bring forward something new, true or untrue, it is singular that no one has yet thought of.

If, on the other hand, we are mediately conscious of external objects, then we have two chances of error in our knowledge of them; 1st, Our perception of our sensations may be fallacious, 2nd, Our sensations may be fallacious. But there is no reason for supposing the former; we can scarcely conceive it likely that we err in our perception of the presentations of sense, though we very often do in our deductions from them, as when we see ghosts or robbers, which are but shadows on the wall, or some familiar object indistinctly seen in the dim twilight, or by the uncertain radiance of the moon or stars. But even then we truly perceive what we actually see, it is the conclusion we come to that is false, from our having joined another false premise to our correct perception. In the case of the sensations themselves though, it is different; our sensations are bodily states, the body is a complex organism; its organisation, which in its normal state is never absolutely and altogether perfect, is subject to abnormal derangement, and is scarcely ever entirely free from it. The sensations depend on the organisation of the organs of sense, when that is

disordered the presentations that we receive vary from what they are when it is in good order ; and consequently, as we all know, *at times*, our senses give us false information. How come we to believe them then ? for we do believe our senses to a proverb. Because their being fallacious is the rare exception ; their presentations we know to be almost uniformly correct, i.e. under the same circumstances they almost always give us the same result ; the same thing always seems the same. The object which we *feel* and pronounce to be round, always seems round to *sight* — one sense checks another, and assures us of its uniformity. If when we saw a spherical object we sometimes felt it to be a cube, sometimes a pyramid, sometimes a cylinder, and seldom, or never, twice alike, we should distrust either our sight or our touch. If when we poured water into the same vessel in the same way, it one day sounded like a bell, another day like a peal of thunder, and another day had no sound at all, and so on, we should necessarily distrust either our hearing, or our sight and touch. But when we find a constant, and, so to speak, invariable



correspondence among our sensations, the conclusion which we naturally come to, the conclusion that we *must* come to, unless we are *very great* philosophers, is, that we must believe them. Belief in the correctness of our sensations as perceived is as natural to us as belief in our consciousness, but not as necessary, for we can at times refuse to believe sensations, but never consciousness: it is the same with memory, belief in the truth of its representations is natural, almost universal, but not necessary. If we knew external objects immediately by consciousness, we should believe all we knew about them, but when we found that we occasionally got a little false information, there would be only two ways of getting out of it, either we must disbelieve consciousness (which according even to Sir W. Hamilton is impossible), or we must believe that the external world is sometimes false in itself. We leave the Absolute Realists to take their choice.

But our sensations being material states must have a cause, what is it? Something external. What is that? Answer:—Whatever is not our mind is external to it; our

body is external ; all other things are external. But how do we know that anything is external? Why may not our sensations be produced by some causes in our own mind? An easy answer to give to this question is, That our notion of externality, like those of space, time, and number, is innate ; a latent idea in the mind evoked by the first experienced sensation. This answer, though easily given, does not admit of direct proof, and the denial of it does not necessarily involve a *petitio principii*, as in the cases of the three innate ideas we have mentioned. There is also an objection to it ; viz.—How is it then, that we so rarely think of our body as external to us? We say willingly enough that it is material, but we only open our eyes wide, and shake our head if we are told that it is external. Now our innate idea should not admit of this ; it should give certain as well as immediate knowledge to all alike. We may reply to this,—That though we do not generally think of our bodies as external to us, we always treat them, *as mere bodies*, in the same way that we treat any other matter ; we see them, we touch them, as we do any other

object; and if they differ to us from other material objects in being the medium of communication with all the rest of the external world, we know that it is the result of their organisation, and not of their mass; that a finger cut off feels no more, that an eye cast out sees no more, that a nerve paralysed gives a sensation no more. Mind can only know the external world by being in direct connection with it; the body is that part of the external world with which the mind is in direct connection, and through which it knows the rest; but it is through its organisation, through its structure, not through its matter.

Another answer to the question,—How do we know that anything is external? is, That we find that the causes of our sensations are not under our own control, and so we acquire the idea that they are not part of us, are external. To this it may be objected,—But the body *is* under our own control, it *is* subject to our will, yet you call it external, how is that? We may reply,—The body is not, as matter, subject to our will, it is only subject to it as organisation; we have the power of moving

it, and that is all. We cannot amputate a limb, nor even remove a hair from our head by simple volition; apart from motion, it is as indifferent to our wishes as though it were wholly unconnected with us. It is, on the one hand, but a machine that we can move, and of which we can direct the motion, and, on the other, the passive means of communication to us of intelligence of itself, and from without itself.

Neither of these answers to the question—How do we know what is external? is the true one. The true answer springs from the very nature of externality itself: How do we, in ordinary parlance, say that we know anything that is external? We say,—That we know it by our senses. *There* is at once the test, the criterion, the *differentia* of externality—it is known by sensation. We can give no other definition of it than this—Externality is existence known to us by sensation,—except that which we gave before—It is all that is not our mind,—and the two are identical. We do not require sensation to give us a knowledge of our states of mind; it has nothing to do with states of mind in that way: we do

not require it to give us a knowledge of the ego, we have that at once, immediately, and it is completely independent of sensation. Sensation is the distinctive characteristic of all our knowledge of matter, and that is what we mean by saying,—All matter is external to us.

Professor Ferrier has as the eighth proposition of his Epistemology,—‘The ego cannot be known to be material—that is to say, there is a necessary law of reason, which prevents it from being apprehended by the senses.’ In his observations on this he holds it to demonstrate, not that the mind cannot *be* material, but that it cannot be *known* to be material. Of course this conclusion is only come to by confounding the mind with the ego in cognition, a position that we have already alluded to and shown to be erroneous. But the immateriality of the mind, *as known to us*, comes out clearly from what we have just said.

Absolute matter is never the objective in cognition.

The qualities of matter can be through perception and sensation, the objective in cognition.

Absolute mind is never the objective in cognition.

States or modes of mind are the only immediate objective in cognition.

The senses are necessary conditions of our knowledge of matter ; or presentations of material qualities must be made to us through the senses.

The senses are never conditions of our knowledge of states of mind ; or our states of mind are never presented to us through the senses.

Consciousness is the sole condition of our knowledge of the ego in cognition, and of our states of mind.

Consciousness is never the sole condition of our knowledge of the qualities of matter.

We cannot, therefore, *know* the qualities of matter as in any way connected in their nature with the ego or self, or with states of mind.

We might have inserted two more propositions concerning the absolute distinction between our knowledge of material qualities and the ego, viz. :

The ego or self is the immediate subjective, and the only subjective, and only the subjective in cognition.

Material qualities are the objective, and that not immediately, and they can never be the

subjective in cognition ; but these propositions are superfluous.

And there the matter—and the mind also—rests.

Sir W. Hamilton sums up the total Relativity of our Knowledge, according to his idea of the matter, in three heads :—‘ It is relative,’ he says,\* ‘ 1st, Because existence is not cognisable absolutely in itself, but only in special modes ;’ that is to say, we cannot know absolute mind or absolute matter. This defines the objective, mediate as well as immediate in all cognition. ‘ 2nd, Because these modes can be known only if they stand in a certain relation to our faculties : 3rd, Because the modes thus relative to our faculties are assented to, and known by, the mind only under modifications determined by these faculties themselves.’ The second may either define the Absolute in cognition of material existence—the necessary relation of the objective to the subjective—but not in the cognition of mind, for our states of mind when they exist are necessarily and always in that relation to the ego which is the criterion of cognition ;— or,

\* *Lectures*, Vol. I, p. 148.

instead of being a definition of this, it may be merely that we must have a sensation, at least, before we can know any quality of matter : so loosely is it put. The third head implies that error may arise in our knowledge from the complication of the process by which we gain it. The words he uses are :—‘ It is of the highest moment that we should be aware that what we know is not a simple relation apprehended between the object known, and the subject knowing,—but that every knowledge is a sum made up of several elements, and that the great business of philosophy is to discriminate these elements, and to determine from whence these contributions have been derived.’ And again :—‘ But this sense of error is not limited to our perception ; and we are liable to be deceived, not merely by not distinguishing in an act of knowledge what is contributed by sense, but by not distinguishing what is contributed by the mind itself.’ Language this that is strangely contradictory to the doctrine that we are immediately conscious of an external world ! It is clear enough also that this third reason for considering our knowledge to be necessarily relative, is no



reason at all. Our knowledge is not relative *because* the modes, thus relative to our faculties, are presented to, and known by, the mind only under modifications determined by these faculties themselves; these modifications do not constitute this relation, or any other relation, they are merely the conditions of the Relativity of our Knowledge; they are the modality of the relation between the subject and the object.

Nowhere does Sir W. Hamilton assert that we know absolute mind, or absolute matter: the greatest length that he goes is the doctrine that we are immediately conscious of the 'Primary Qualities of Matter.' This doctrine we have already shown to be inconsistent with his express statement that consciousness is only a part of every state of mind, not a distinct state of mind whereby we have a knowledge of all other states of mind, and of the ego or self; that it is inconsistent with his statement that consciousness must be always believed in; that it is inconsistent with the existence of sensation, let alone perception; that it is contradictory in its very statement, as we never have 'the bare notion of matter,' and never

See

can have it, according to his own showing, and it is, therefore, absurd to say that we can deduce the Primary Qualities from it *à priori*; that the so-called Primary Qualities are part of a classification of the qualities of matter based on erroneous grounds both physical and psychological, and that they have no more claim to the title than *any other* qualities of matter; and, lastly, we have here his own statement, 'that every knowledge is a sum made of several elements,' which denies immediate consciousness of anything.

Mr. Mill does not altogether hit the point in reviewing this portion of Sir W. Hamilton's philosophy; he comes to a conclusion which is not warranted by anything to be found in any part of Sir William's writings, and still less so by any of the passages which he quotes. Mr. Mill's conclusion is, 'It has been shown, by accumulated proofs, that Sir W. Hamilton does not hold any opinion in virtue of which it could be rationally asserted that all human knowledge is relative; but did hold as one of the main elements of his philosophical creed, the opposite doctrine, of the cognoscibility of external things, in certain of their aspects, as

they are in themselves, absolutely.' But all that he has really proved, and all that he really can prove is, that Sir W. Hamilton called himself, and took especial pride in calling himself, an *Absolute*, or a *Natural Realist*, while throughout his works his entire teaching is in accordance with the doctrines of what he calls *Cosmothetic Idealism*; and that the very utmost that he tries to make out is, that, as we know the Primary Qualities as *they* exist in themselves, so we gain a *belief* in the existence of a *substance* or *substratum*, i. e. of Absolute Matter. Sir W. Hamilton asserts the Relativity of Human Knowledge all throughout his works, uses it everywhere, and unquestionably means it everywhere. It is only when he feels bound to range himself with Reid and Stewart, and to pour volley after volley into Brown, that he tries, though all in vain, to conceal the uniform of Cosmothetic Idealism with a pretentious cloak of Natural Realism.

We must add to this that throughout Sir W. Hamilton uses the term *ego*, in a loose and variable manner, sometimes, and most frequently, as synonymous with the *mind*, occasionally, with the *mind and body together*,

and often with *personal identity*; while he always uses the *non-ego* in the sense of the *external*, not to the *mind only*, but to the *mind and body*.

Mr. Mill cannot see the validity of Sir W. Hamilton's well-known and repeated *reductio ad absurdum*: 'To doubt of the reality of that of which we are conscious is impossible; for as we can only doubt through Consciousness, to doubt of Consciousness is to doubt of Consciousness by Consciousness. If, on the one hand, we affirm the reality of the doubt, we thereby explicitly affirm the reality of Consciousness and contradict our doubt; if, on the other hand, we deny the reality of Consciousness, we implicitly deny the reality of our denial itself.' This little argument seems to Mr. Mill 'no better than a fallacy,' for,\* 'it treats doubt as something positive, like certainty, forgetting that doubt is uncertainty. Doubt is not a state of Consciousness but the negation of a state of Consciousness. Being nothing positive but simply the absence of a belief, it seems to be the one intellectual fact which may be true without the self-affirma-

\* *Examination*, p. 132.

tion of its truth ; without our either believing or disbelieving that we doubt. If doubt is anything other than merely negative, it means an insufficient assurance ; a disposition to believe, with an inability to believe confidently. But there are degrees of insufficiency ; and if we suppose, for argument's sake, that it is possible to doubt Consciousness, it may be possible to doubt different facts of Consciousness in different degrees. The general uncertainty of Consciousness must be the one fact that appeared least uncertain.' Doubt is a hesitation between two possibilities of belief ; it is not the negation of belief, *that is disbelief* ; it is not nothing, it is a balanced judgement ; it is thought, and as thought it must be an object of consciousness. It is impossible if consciousness were uncertain, that we could know that its uncertainty was the least uncertain fact, or, in Mr. Mill's language, that it could appear the least uncertain fact, for in that case the absurdity is as strong as ever, and we have the most certain uncertainty telling us that it is the most certain uncertainty. Unquestionably the *reductio ad absurdum* is correct, and the best of all proofs that it is so,

is Mr. Mill's tumbling right into it, when he is trying to disprove it.

Mr. Mill says\* :—'This' (the doctrine that there is nothing else *to be known* in matter than qualities—no substance, no *substratum*, no absolute matter), 'however, is far from being the shape in which the doctrine of the Relativity of our knowledge is usually held. To most of those who hold it, the difference between the Ego and Non-Ego is not one of language only, nor a formal distinction between two aspects of the same reality, but denotes two realities, each self-existent, and neither dependent on the other. In the phraseology borrowed from the Schoolmen by the German Transcendentalists, they regard the Noumenon as in itself a different thing from the Phænomenon, and equally real; many of them would say, much more real, being the permanent Reality, of which the other is but the passing manifestation.' If we hold the erroneous view which we have already noticed, that the ego in cognition is the mind, it may be considered to be *a* noumenon, but not noumenon in general, *unless the mind be mate-*

\* *Examination*, p. 9.

rial, when the noumena of mind and matter become identical. The non-ego is always phænomenal, but, except upon this last supposition, not always a phænomenon of the same noumenon. Is Mr. Mill's enunciation in this passage a declaration of materialism, or is it merely an inadvertency? We do not for a moment suppose that Mr. Mill, if he be not a materialist, does not know better than to confound the ego and non-ego with the noumenon and phænomenon, but he should make it clearer that he does so: certainly the two sentences just quoted give, when taken together, as they stand, a very strong and very natural presumption that he does not.

Mr. Mill devotes a chapter of his 'Examination' to the inquiry, How far the Psychological Theory of the Belief in Matter is applicable to Mind? He considers the ego generally as equivalent to the Mind, and the non-ego to matter. At the commencement of the following chapter he sums up his conclusions thus; \*—'For the reasons which have been set forth, I conceive Sir W. Hamilton to be wrong in his statement that

\* *Examination*, p. 214.

a Self and a Not-Self are immediately apprehended in our primitive consciousness. We have in all probability, no notion of not-self, until after considerable experience of the recurrence of sensations according to fixed laws, and in groups. But without the notion of not-self, we cannot have that of self which is contrasted with it: and independently of this, it is not credible that the first sensation which we experience, awakens in us any notion of an Ego or Self. To refer it to an Ego is to consider it as part of a series of states of consciousness, some portion of which is already past. The identification of a present state with a remembered state cognised as past, is what, to my thinking, constitutes the cognition that it is I who feel it. "I" means he who saw, touched, or felt something yesterday or the day before. No single sensation can suggest personal identity: this requires a series of sensations, thought of as forming a line of succession, and summed up in thought into a Unity.'

The whole of the former chapter and of this summary of it is vitiated, first, by the errors of considering the ego to be the mind,



and the non-ego to be external to it, and, then, by the change in the meaning of Self from mind to personal identity. The definition of the ego—the *ens unum* IN OMNIBUS notitiis—as *the fact of immediate individual existence* disintegrates the whole, and it lies a hopeless mass of what Professor Ferrier would have called ‘nonsense.’ The only thing remarkable in it is the following doctrine:—‘The belief I entertain that my mind exists, when it is not feeling, nor thinking, nor conscious of its own existence, resolves itself into the belief of a Permanent Possibility of these states. If I think of myself as in a dreamless sleep, or in the sleep of death, and believe that I, or in other words my mind, is or will be existing through these states, though not in conscious feeling, the most scrupulous examination of my belief will not detect in it any fact actually believed, except that my capability of feeling is not, in that interval, permanently destroyed, and is suspended only because it does not meet with the combination of outward circumstances which would call it into action; the moment it did meet with that combination it would revive, and remains,

therefore, a Permanent Possibility.'\* The doctrine of the cessation of thought in the mind without the cessation of its existence is not a new one, and has been held by many Spiritualists, but in our opinion it is only consistent with Materialism, and then only during the existence of life in the body, for Materialism can only allow the Immortality of the Soul by denying itself. The question whether the mind is ever, while we are in life, in a really inactive state, has been frequently discussed, and the balance of evidence certainly seems to lie on the side that, however incoherent and unintelligible, and impossible to remember, our thoughts may be in certain cases, the wondrous chain of them never wants a link in its continuity of succession.

With such views of the ego we cannot wonder that Mr. Mill does not see the importance of fully and always recognising the presence of the Subjective in cognition—‘the fact that all our knowledge is relative to us inasmuch as we know it.’ This doctrine, which is the foundation of all metaphysical philosophy—the solid basis on which Ferrier

\* *Examination*, p. 205.

founded his Institutes,—he calls ‘a triviality’ and ‘an insignificant truism.’ All axioms are *truisms*, and all reasoned philosophy must be founded on these *trivialities*. But Mr. Mill nowhere propounds a *reasoned* Philosophy, either in his ‘Examination of Sir W. Hamilton’s Philosophy,’ or in his work on ‘Logic,’ or as it might be more correctly designated ‘The Philosophy of Science.’

But it is now time for us to inquire:—Is the reality of the existence of the external world the same to the Cosmothetic Idealist as it is to the Natural Realist? Not quite. The latter believes that he is immediately conscious of matter, and believes in the real existence of matter solely from his belief in the reality of his consciousness; the latter believes that he is only mediately conscious of matter, but believes in its reality, as known to him, from his belief in his consciousness, and in the trustworthiness, generally speaking, of the mediums through which he is conscious. The belief in our consciousness is but a portion of the belief which as a whole constitutes our belief in an external world. The external world is not to us a mere pre-

sent, instantaneous existence ; it is not the objective of our present cognition only ; it is the sum of the united objectives of all those of our cognites, in which the objective was in whole or in part mediate, and dependent on sensation. Therefore our *thought* of the external world, in which we believe, demands for this belief in it much more than the simple belief in our consciousness, which is only a belief in what is momentarily present to us. It requires belief in our remembrances, for the external world is one of continuous existence ; it demands belief in our judgements, for whenever we get an instant away from the present, judgement comes into play—we cannot recognise a remembrance without judgement—we cannot even tell whether it be a remembrance or a consciousness. We may, in time, learn to distrust our memory somewhat ; in certain cases, we may distrust our judgement also ; and a still less amount of experience teaches us not to be on all occasions absolutely certain of the correctness of the presentations of sense. But if we do not so uniformly through life continue a belief in their infallibility, as we do in the case of consciousness, we never disbelieve them alto-

gether, and the narrow limit of their error bears but a small proportion to the broad field of their trustworthiness. We believe in them intuitively, our belief in them is innate; not only do we not remember a time when we disbelieved them; but by observation we can never detect a time in the merest infancy of others in which they are not believed in; we never see a child exercise a volition in the very dawn of opening intellect that does not imply a belief in its sensations and in its judged remembrances. If we at first had had no belief in them we never could have acquired any. The simplest belief that may fairly be called the result of experience, and there are beliefs that may be fairly so called, is the result of judgement; and in order that it may give a belief in any proposition, judgement must first have a *reason-why*, something in which the mind believes already. If we believe that, A is B, we must so believe for some reason-why, *or it is an innate belief*; if that reason-why be, for example, that, Both A and B are C, we must believe in those two propositions first, and must have a reason-why for each of them, *or they are innate*

*beliefs*, and so we are driven farther and farther back, but must *rest* on an innate belief in the end.

We must, then, believe something *à priori*, have some belief which is not the result of reasoning or experience, some original and firm *point d'appui* from which to act, or we can no more believe at all, than Archimedes could pretend to move the world unless he had a point given him to rest his lever on. What is this belief? The belief in the reality of existence; the belief in the reality of individual mental existence; in the reality of material existence; in the truth and uniformity of our sensations, and in the corresponding causes that produce them; in our memory that it is true; and in our judgement that all these beliefs are true, for, though a belief in that could not give us these beliefs, it must underly them all. Thus—having a necessary belief not only in consciousness, which gives us an immediate knowledge of our present states of mind and of the ego, but also in states of mind which give us mediate presentations, and even representations; and not only in these, but in states of body, affections

of matter, giving us presentations, as effects which must have a cause, of other matter which we believe in, at least in so far as we believe that they are uniform in that relation of cause and effect—the necessity of the immediate consciousness of matter, or even of its wonderful Primary Qualities in order to give us a belief in its existence is done away with, for much of our belief in matter, in an external world, as we know it, is made up of our beliefs in these states of mind and body, and cannot be a belief in immediate knowledge of it. If matter were as we do *not* know it, there is no saying how we might believe in it.

Mr. Mill enunciates the Psychological theory ;\*—‘ that there are associations naturally, and even necessarily generated by our sensations, and by our reminiscences of sensation, which supposing no intuitions of an external world to have existed in consciousness, would inevitably *generate the Belief*, and would cause it to be regarded as an intuition.’ The doctrine of Inseparable Association is the foundation of this statement, but the doctrine of Inseparable Association postulates the be-

\* *Examination*, p. 192.

belief in the first instance, and is a *petitio principii* after all. As to the 'Permanent Possibilities of Sensation,' as Mr. Mill calls them, they are only concepts under another name, and as all concepts are the result of one or more judgements, and as every judgement requires an *à priori* belief, we cannot look for *the origin* of belief in that quarter. It is the common error of all Empiricists to overlook the fact, that their reasoning is always based on a tacit assumption of the very point in dispute. No length of experience could ever give us an idea of externality, of space, of time, of number, or a belief in any of our sensations, in memory, in judgement, or least of all in consciousness, and the reality of the existence of its immediate objects—states of mind—without our having *à priori* the innate ideas of externality, space, time, and number, and the innate beliefs which we have mentioned, for without these we could not reason on those facts, which are, when reasoned on, Experience. It is true that our experience (which implies memory and judgement, as well as consciousness, and belief in all three, and, in so far as the external world goes, in our



sensations as well), extends and perfects our innate but elementary ideas of space, &c., but it could never *originate* one of them; they must all be prior to it; *its existence is dependent on them; their existence is à priori and independent; their developement alone is dependent on it.*

As Cosmothetic Idealism shows a possibility of our having erroneous presentations of material objects, without calling on us to believe, either, on the one hand, that consciousness is false, or, on the other, that objects are false in themselves—to one of which alternatives the errors of sense drive Absolute or Natural Realism,—it is more in accordance with the observed phænomena, i. e. more *real* than the latter; and, therefore, *there is a difference*, and, in philosophy, the external world must appear more real to the Cosmothetic Idealist than to the Natural Realist.

The question of Absolute Mind and Absolute Matter,—of the reality of a substance, or *substratum*, underlying our mental states, and the qualities of material objects,—being one which, in the nature of things, we can neither affirm nor deny, it is, at any rate, consoling to

think that matter *as we know it* is just as good for every purpose of practical utility, or scientific investigation, as if we were perfectly certain that there were such a reality—such a noumenon—as Absolute matter which we could never know: and mind as a constant succession of mental states with consciousness, and with the constant consciousness of the ego i. e. as a perpetual cognitive, is as *real* an existence as it could be rendered by the knowledge of any *ὑπόστασις*, or *ὑποκείμενον*, that the most subtle philosopher could ever imagine for its improvement.

Let us now turn from the consideration of knowledge to that of thought,—from the Absolute in cognition to the Absolute in cogitation,—or as it is frequently, though erroneously, called, the Absolute in conception;—and here the first thing that naturally strikes us is, that we shall only be considering the same thing in a different point of view;—that our knowledge is our thought as we are conscious of it, i. e. know it; that our thought is our knowledge as we think it. Such, however, is by no means the case, there is an important difference. For the sake of

comparison we shall state the principal points in Ennoiology, or the Theory of Thinking, in a similar form to that in which Professor Ferrier gives the Epistemology, Agnoiology, and Ontology in his 'Institutes of Metaphysics'; though without pretending to enter on anything like a complete Ennoiology, which would be a task in itself of no ordinary magnitude, and the true and proper commencement and foundation of the Institutes of Dialectic, or the Theory of Logic.

Consciousness is the Relative in cogitation; the Ego or Self is the Relative in cogitation; any state of mind is the Relative in cogitation.

Consciousness is the Subjective in cogitation; the Ego or Self together with any state of mind is the immediate Objective in cogitation.

Consciousness with the objects of consciousness is the Absolute in cogitation; consciousness with the Ego or Self and with a state of mind is the Absolute in cogitation; consciousness with the Absolute in cognition is the Absolute in cogitation. This synthesis, thus variously expressed, is the Absolute and

the only Absolute in cogitation; or it is *Thought*.

Now where is the difference here between the Absolute in cognition and the Absolute in cogitation,—between knowledge and thought? It is this,—Consciousness is an element of thought, it is only a condition of knowledge; the Absolute in cognition *plus* consciousness is the Absolute in cogitation. Corresponding with this we have as the Relative in cogitation one term more than in the Relative in cognition, and that element is a constant; so that instead of having a single element forming the *proximum genus* in our thoughts,—as the ego is in our cognites,\*—we find that in the former the *proximum genus* is dual, we have two constant elements,—consciousness and the ego. In another way of putting the difference between knowledge and thought we may say,—Our knowledge is what we are conscious of; our thought is the consciousness of our knowledge.

But although a reasoned Ennoiology is the

\* When we come to view our thoughts and our knowledge more minutely we shall find that another constant element, which we have not yet noticed, is latent in both.

proper foundation of a Theory of Logic, only a portion of it is available for that purpose ; for whilst a complete Ennoiology would give the conditions of the existence of all possible thought, Logic only deals with a certain class of thoughts, viz. those of which some other thought can be affirmed or denied, or which we can affirm or deny of some other thought ; for it is solely with affirmation or denial, pure or modal, that Logic has to do. In the mind these affirmations and denials are *judgements*, thoughts necessarily compound in their nature, requiring *à priori* other thoughts, between which the discrimination is made,—between which a relation is declared and its nature stated. Enunciated in language these judgements are called *propositions*. The previously existing thoughts that are the necessary foundation of the judgement, and which, together with the relation between them, form the matter of that judgement, may be themselves either simple or compound. Enunciated in language *they* are *substantive* or *adjective names* ; viewed as parts of a proposition they are called its *terms*. What are they called as *thoughts*, as parts of the judge-

ment,—the compound thought, unenunciated, simply existing in the mind? For the present we shall call them *all, Concepts*; the results of the mental act of *conception*, not in the sense in which Stewart and Brown use that word, viz. ‘the power that enables us to form a notion of an absent object of perception, or of some previous feeling of the mind,’ but in the more strictly correct, though more general, sense in which it is used by Sir W. Hamilton, viz. ‘the act of comprehending or grasping up into unity the various qualities by which an object is characterised.’

Now these concepts are thoughts, and, therefore, before we consider Sir W. Hamilton’s peculiar views with regard to them we must first see that we are viewing them *as thoughts* in the same light as he does. How do we consider thoughts? The Absolute in Cogitation is Consciousness with the Absolute in Cognition: the Absolute in Cognition is the Ego or Self with some state of mind. A state of mind is the power of presentation of an object to Consciousness together with the presentation. This gives us, in states of mind, a constant part—power of presentation,—and

a variable part—the individual presentations : in the Absolute in Cognition, a constant part—the Ego or Self,—and a variable part—the state of mind ; in the Absolute in Cogitation, a constant—Consciousness, and a variable—the Absolute in Cognition : or, we have, putting it in another form, in the Absolute in Cogitation, *proximum genus*—Consciousness, *differentia*—the Absolute in Cognition ; in the Absolute in Cognition, *proximum genus*—the Ego, *differentia*—a state of mind ; in states of mind, *proximum genus*—power of presentation to Consciousness, *differentia*—the presentation to Consciousness. Running back along this, however, we see that there is a fault in it, inasmuch as we include in the *differentia* of the Absolute in Cognition, a constant element, viz. the power which every state of mind has of making presentations to Consciousness. Similarly, in the Absolute in Cogitation, we have included in the *differentia* two constant elements, the power of presentation by a state of mind and the Ego. If we now put these constants in their proper place, we have, in the Absolute in Cogitation, *proximum genus*—Consciousness *plus* the Ego *plus* the power

of presentation of a state of mind, and the *differentia*—the presentation made by a state of mind ; and, in the Absolute in Cognition, *proximum genus*—the Ego *plus* the power of presentation of a state of mind, and the *differentia*—the presentation made by a state of mind.

But a natural tendency of the human mind in thought is to disembarass itself as much as possible from all that incumbers or impedes it ; hence, when considering either individuals of a *species*, or *species* of a *genus*, it uniformly, unless its action be especially directed to it, sinks the common part,—the *species specialissima* in the former case, *the proximum genus* in the latter. And thus, in considering our states of mind in cognition, their power of presentation to Consciousness is never kept in view, but only their actual presentations. In our cognites, the ego is sunk in like manner, and we have only the presentations of our states of mind left.\* In cogitation, finally, consciousness is sunk ; and as we have only

\* This is the origin of those erroneous counter-propositions of the Psychologists, which Professor Ferrier destroys in his Institutes.



brought up as the Absolute in cognition, not the true Absolute, but a false and modified and unreal one—the presentations of our states of mind,—that remains as the false, unreal Absolute in cogitation,—not the true Absolute, but what is generally considered to be such, and that even by most philosophers. The result of this view of the matter is that the Absolute in cognition, and the Absolute in cogitation are the same; there is no longer a distinction between knowledge and thought; our concepts are but a certain class of our cognites and we may drop the latter term altogether, as being only needed when we attend to such truisms and trivialities as their real and absolute natures. And further our concepts end in being only a certain class of the presentations of our states of mind—the ego and consciousness being both dropped.

Sir W. Hamilton, while he uses the term concept as an equivalent for one of the two significations of the word conception, and restricts the latter solely to the mental act of conceiving, does not by any means take it as equivalent to the objective conception of either Reid or Brown. The former holds\*

\* *Hamilton's Reid*, p. 360, *et seqq.*

our conceptions of things to be ideas of things in our minds which are not the perceptions of sense, or the simple products of memory. They are either, first,—Fancy pictures—creatures of fancy, or imagination,—not the copies of any original that exists, but originals themselves; or, secondly, copies, which have an original or archetype to which they refer. The latter are of two kinds, first, of individual things that really exist; and, secondly, of universals. This limits concepts entirely to the field of imagination, for the copies of the first kind are not remembrances, not copies of what we have seen, or felt, or in any way perceived by the Senses, but copies of which the archetype is unknown to us except by description; but it does not limit concepts in any way according to the quantity of the object, we may have concepts of an individual or of a universal. Brown considers\* a conception (concept) to be ‘a notion of an absent object of perception, or of some previous feeling of the mind,’ what we should generally term a remembrance, a concept represented to the mind. Memory according to

\* *Lecture XLI.*

Brown is merely the notion of past time, which constitutes the relation of that concept when first thought to the concept that we now have. According to his peculiar views he resolves the Power of Conception, along with Memory and Imagination (it is under relative suggestion that he includes Judgement) into Simple Suggestion, or Association of ideas. Sir W. Hamilton with Reid does not consider as concepts either our perceptions by sense or our remembrances of them, as these necessarily are of individuals only, but he, also, cuts off all individual images (i.e. representations of the imagination) whether they be of real or fanciful existence. In the same way from Brown's definition he would exclude the absent object of perception, and all previous feelings of the mind that are concerned with individuals. The following are his enunciations on the subject,—‘In our consciousness,—apprehension of an individual object, there may be distinguished the two following cognitions:—  
1°, The immediate and irrelative knowledge we have of the immediate object, as a complement of certain qualities or characters, considered simply as belonging to itself. 2°,

The mediate and relative knowledge we have of this object, as comprising qualities or characters common to it with other objects.

‘The former of these cognitions is that contained in the presentations of Sense, external and internal, and Representations of imagination.\* They are only of the individual or singular. The latter is that contained in the Concepts of the Understanding, and is a knowledge of the common, general, or universal.

‘The conceiving an object is, therefore, its recognition mediately through a concept; and a concept is the cognition or idea of their general character, point or points, in which a plurality of objects coincides.’

And again, †—‘A concept or notion thus involves—1<sup>o</sup>, The representation of a part only of the various attributes or characters of which an individual object is the sum; and, consequently, affords only a one-sided and inadequate knowledge of the things which are

\* Here we have a cognite, first of all considered to be the same as a thought, and then represented as contained in what can be only a part of itself—the Relative in cognition.

† *Lectures*, Vol. III, p. 127.

thought under it. 2°, A concept or notion, as the result of a comparison necessarily expresses a relation. It is, therefore, not cognisable in itself, that is, it affords no absolute or irrelative knowledge, but can only be realised in Consciousness by applying it, as a term of relation, to one or more of the objects, which agree in the point or points of resemblance which it expresses.'

Now this limitation of the term concept is not in accordance with the meaning which we gave it when we said that 'name' and 'term' were its equivalents, the former when it was represented simply in language, the latter when it appeared as a member of a proposition. Both names and terms are, as we know, of two kinds, *individual* and *general*; they stand either for single objects or thoughts, or for the classes which contain these. According to Sir W. Hamilton it will only be the second of these two kinds that corresponds to concepts. What correspond to the first kind are 'the presentations of sense external and internal, and the representations of imagination.' When we see *John* or *Joseph* we have no concept of him, but

presentations of sense; when we think of the same party unseen, we have no concept of him, only re-presentations of imagination. When we think of *man* as a race we have a concept of *man*, and so on. Is there any foundation for this distinction? When we have 'the presentations of sense' of *Joseph* have we no 'comprehending or grasping up into unity the various qualities by which' that 'object is characterised'? When we think of absent *John* are 'the representations of imagination' that form our image of him, all loose and unconnected? When we see an inkstand on the table, what groups 'the presentations of sense' which we have of the inkstand into one group, and those of the table into another? Do the presentations of sense group themselves? When we imagine the ship we saw a week ago what binds together the representations that constitute our image of it? Do the representations of imagination group themselves? Surely in all these cases there must be an act of mind, an act of viewing all the individual qualities together and in their relation to the ego, an act, in short, of conception as Sir W. Hamilton defines it.

And while it thus seems that the same operation is necessary both in the case of individual and general ideas—using the word in the sense in which Locke uses it—and that they should all pass by the same name of concepts, as they are all generally represented in language, both ordinary and technical, by the same words—names and terms,—we have still another reason why no change should exist. In proceeding from the individual to the highest generalisation in which it is included—the *summum genus*—we find that as we ascend in the scale, the meaning of the name denoting each class diminishes in volume—in the number of qualities which it comprehends; while the number of classes, and, therefore, of individuals to which it applies increases: in philosophical parlance, according to Sir W. Hamilton,—and his is the best terminology of the matter,—it increases in extension and diminishes in comprehension; or, in another *argot*, it increases in denotation and diminishes in connotation. The *summum genus*, in any system of classification, gives the *maximum* of extension, i.e. it applies to all the individuals classified, and has the *minimum* of

comprehension, i.e. comprehends fewer attributes than any individual, or any intermediate class. While ascending by any of the streams that in their course converge to it, an individual—one of the sources of that stream—has the *minimum* of extension, for it denotes but itself; while it has the *maximum* of comprehension, for it possesses all the qualities comprehended by the classes above it, from the *summum genus* to the *species specialissima*, and all its own *accidentia* as well. The scale of breadth and depth—as it is called—is regularly developed in both directions: why then should we stop short when we come to the individual, and, having called the *summum genus*, and every *genus subalternum* down to and including the *species specialissima* a *concept*, deny that name to the last link of the chain? The reason that Sir W. Hamilton gives is that we can think the individual but not the general,—we cannot realise a concept in thought. One of his enunciations on the subject is,\*—‘The terms *notion* and *conception* (or more correctly *concept* in this sense) should be reserved to express what we comprehend but cannot picture in imagination, such

\* *Reid's Works*, p. 291, n.



as a relation, a general term, &c.’ Another and a more complete is,\*—‘Formed by comparison, they (concepts) express only a relation. They cannot, therefore, be held up as an absolute object to Consciousness, they cannot be represented as universals in imagination. They can only be thought of in relation to some one of the individual objects they classify, and when viewed in relation to it, they can be represented in imagination; but then, as so actually represented, they no longer constitute general attributions, they fall back into mere special determinations of the individual object in which they are represented. Thus it is that the generality or universality of concepts is potential not actual. They are only generals, inasmuch as they may be applied to any of the various objects they contain; but while they cannot be actually elicited into consciousness, except in application to some one or other of these, so, they cannot be so applied without losing, *pro tanto*, their universality. Take, for example, the concept *horse*. In so far as by *horse* we merely think of the word, that is, of the combination

\* *Lectures*, Vol. III, p. 134.

formed by the letters *h, o, r, s, e*,—this is not a concept at all, as it is a mere representation of certain individual objects. This I only state and eliminate, in order that no possible ambiguity should be allowed to lurk. By *horse*, then, meaning not merely a representation of the word, but a concept relative to certain objects classed under it;—the concept *horse*, I say, cannot, if it remain a concept, that is a universal attribution, be represented in imagination; but, except it be represented in imagination, it cannot be applied to any object, and, except it be so applied, it cannot be realised in thought at all. You may try to escape the horns of the dilemma, but you cannot. You cannot realise in thought an absolute or irrespective concept, corresponding in universality to the application of the word; for the supposition of this involves numerous contradictions. An existent *horse* is not a relation, but an extended object possessed of a determinate figure, colour, size, &c.: *horse*, in general, cannot, therefore, be represented, except by an image of something extended, and of a determinate figure, colour, size, &c. Here now emerges the contradiction. If, on

the one hand, you do not represent something extended and of a determinate figure, colour, and size, you have no representation of any horse. There is, therefore, on this alternative, nothing which can be called the actual concept or image of a horse at all. If, on the other hand, you do represent something extended and of a determinate figure, colour, and size, then you have, indeed, the image of an individual horse, but not a universal concept co-adequate with *horse* in general. For how is it possible to have an actual representation of a figure, which is not a determinate figure? but if of a determinate figure, it must be that of some one of the many different figures under which horses appear; but then, if it be only one of these, it cannot be the general concept of the others, which it does not represent. In like manner, how is it possible to have the actual representation of a thing coloured, which is not the representation of a determinate colour, that is, either white, or black, or grey, or brown, &c.? But if it be any one of these, it can only represent a horse of this or that particular colour, and cannot be the general concept of horses of

every colour. The same result is given by the other attributes; and what I originally stated is thus manifest,—that concepts have only a potential, not an actual universality, that is, they are only universal, inasmuch as they may be applied to any of a certain class of objects, but as actually applied, they are no longer general attributions, but only special attributes.’ Now all this is what Mr. Mill must call a truism—though it is not exactly a triviality—and it may be summed up in eight words—We cannot think the universal as the individual; a proposition that none can deny even though they hold the Platonic doctrine of the actual existence of universal ideas,—the Realist theory of abstract entities, universals *a parte rei*.

The question really before us is,—When we perceive or imagine an individual, and have, consequently, a thought of it, is that thought in any way different in its form or nature from the thought which we have when we think of all the individuals of the same kind as a class? If it be not, there can be no reason why the same general name should not be given to both,—why they should not be

classified together. The question may be stated still more explicitly by means of a little quasi-mathematical notation,—When we think  $M$  qualities together as denoting a number,  $P$  (definite or indefinite), of individuals, is our thought different in form or nature from another thought in which we think  $M+N$  qualities together as denoting one individual? They cannot possibly vary in form, for they must both consist of a constant part—consciousness *plus* the ego *plus* the power of presentation of a state of mind, and of a variable part—the presentation of a state of mind; so, if there be any difference it must be in their nature, and it must lie in the variable part—in the presentation of the state of mind. Hitherto we have used the phrase ‘presentation of *a state* of mind’ as equivalent to the variable in cognition and cogitation, because while so far it was adequate to our purpose, we thereby avoided some words in repetition in a case where much repetition is absolutely unavoidable if we would keep our line of argument clear, distinct, and always in view. But the proper phrase to represent the variable in cognition and cogitation is ‘the

presentation of *a state or states* of mind,' for we have scarcely a thought, from the cradle to the grave, in the formation of which several of our intellectual powers are not simultaneously employed. Memory, judgement, and even imagination are assisting in what we consider our simplest thoughts. If we have a pain we feel it as a *sharp* pain, or a *dull* pain, or an *excruciating* pain, or some other pain equally the result of memory, judgement, and metaphorical comparison. If we see a red ball, it is a large ball, or a middle-sized ball, or a small ball, any of them employing memory and judgement; while it is a bright red, or a dark red, or a medium red, to say nothing of crimson, scarlet, cerise, ponceau, and all the rest, which again implies judgement and memory. In what Sir W. Hamilton calls a *concept* our states of mind present to our consciousness a number, be the same more or less, of qualities as the common representation of a number, be the same more or less, of individuals; and in the cases of what we may call a *percept* or an *image* they present us, exactly in the same way, with a number of qualities as the

representation of a single individual. There can possibly be nothing different in the nature of these two thoughts. It is true that in the general concept we have only a part of the qualities which apply to any one of the individuals of which it is the representation, and we cannot fancy, i. e. realise in thought, any one of these individuals as existing with these qualities *and no more*, but that does not for a moment interfere with our thinking them as existent,—realising them in thought,—as possessing those qualities, while we do not interfere at the time with the others which they must individually have. Reasoning in Sir W. Hamilton's way, we might argue that we can never realise in thought the existence of an individual, for most certainly we never form a concept of one that does not omit many of the qualities which belong to it, and are unknown to us;\* while, even of those which we

\* 'Individual things which really exist, being the creatures of God, (though some of them may receive their outward form from man,) He only who made them knows their whole nature; we know them but in part, and therefore our conceptions of them must in all cases be imperfect and inadequate; yet they may be true and just as far as they reach.'—*Reid, On the Intellectual Powers*, Essay IV, cap. i.

know, we, in our ordinary concepts,—our working thoughts of the person or thing,—omit always some, often the greater part. So much is this the case that we usually employ the general name of a class which contains it to denote a really existing individual that we do not require to describe, as when we say,—A man walked from London to York in 60 hours,—A horse ran off with a carriage in the Strand,—and the like. If we see a man in the street, unless our attention is particularly called to him, we realise him in thought as a man without thinking of his mortality, his fallibility, his place in natural history, his nationality, his religion, and the thousand and one things that are all necessary to make up the perfect concept of him as an individual;—things we may remark which are partly to be known by sense, partly by intellection. We can imagine Q. Mucius standing before Porsenna and thrusting his hand into the blaze, without ever dreaming of what he weighed; and few people, except Guido, or those who have seen his picture, ever proposed to themselves the question whether Nessus was a bay or a



dapple. Now if in the case both of percepts and images we can and do dispense with so much, and yet realise an individual in thought, there can be no reason why we should not realise in thought a number of individuals of whom the common characteristics, but the common characteristics only are presented to us. It is not, we repeat, and repeat emphatically, the question of realising a single individual as possessed of the common characteristics of a class *and no other*—though we can realise an individual as possessing these characteristics, without thinking of the others which it must possess—but of realising by their common characteristics a number of individuals whom we do not wish to distinguish as individuals. We must always bear in mind that a class must be looked upon as an aggregate of individuals; it has no existence apart from them; as a *name* it denotes them, as a *term* it implies them, as a *concept* it is they. We say, then, that our notion or idea of an individual be it as a percept from the presentations of sense, or as an image from the representations of imagination, is as much a concept as any notion or idea of

an universal that can be named;—so much so that Sir W. Hamilton himself could not get out of it, and often used the word concept for the percept or image of an individual; a slip which has not escaped the notice of Mr. Mill.\* Universals do *really* exist, but not *a parte rei*. Their existence springs solely from the existence of the individuals that compose the class; without the existence of the individuals, they would never have been, but when once they have been formed their existence as concepts is no longer dependent on the existence of the individuals, but on the intelligence which has conceived them.

Sir W. Hamilton is caught out by Mr. Mill in another and a very obvious point. He quotes the well-known passage in Berkeley, where the good Bishop expresses the most extreme nominalist opinions, and having approved of them and coincided with them, he says in another place,†—‘But it does not from this follow that concepts are mere words, and that there is nothing general in thought itself. This is not indeed held in reality by

\* *Examination*, p. 337.

† *Lectures*, Vol. III, p. 136.

any philosopher; for no philosopher has ever denied that we are capable of apprehending relations, and in particular the relation of similarity and difference; so that the whole controversy between the conceptualist and nominalist originates in the ambiguous employment of the same terms to express the representations of imagination and the notions or concepts of the Understanding.' It is impossible to see that this has anything to do with the matter, for the question is not, How do we come by our concepts? but, Do we think them? The doctrine which he enunciates in the first sentence is pure Conceptualism, and the very reverse of Berkeley's.

Mr. Mill indorses Sir W. Hamilton's opinion that concepts are not cognisable in themselves, calling it 'sound doctrine,' but 'pure Nominalism.' Then he drops consistently into the error that though we may be conscious of the attributes which compose a concept, we can only be conscious of them as forming a representation jointly with other attributes which do not enter into the concept. And with equal consistency he says, — 'To say, therefore, that we think

by means of concepts, is only a circuitous and obscure way of saying that we think by means of general or class names.' A little before he said,—'Would it not convey both a clearer and a truer meaning, to say that we think by means of ideas of concrete phænomena, such as are presented in experience or represented in imagination, and by means of names, which being in a peculiar manner associated with certain elements of the concrete images, arrest our attention on these elements?' Surely this is not thinking by means of names, but by means of their connotation. Mr. Mill was once a Conceptualist, for he thus began the second chapter of his 'Logic,'—'"A name,"' says Hobbes, '"is a word taken at pleasure to serve for a mark, which may raise in our mind a thought like to some thought which we had before, and which being pronounced to others, may be to them a sign of what thought the speaker had before in his mind.'" This simple definition of a name, as a word (or set of words) serving the double purpose of a mark to recall to ourselves the likeness of a former thought, and a sign to make it known to others, ap-

ears unexceptionable. Names, indeed, do much more than this; but whatever else they do appears to grow out of, and is the result of this: as will appear in its proper place.' Surely this is the perfection of Conceptualism. Names are but symbols of thoughts, we do not, cannot think by means of names but by means of thoughts, and if we sometimes do not think all that the symbol represents, we do not the more on that account think by the symbol, but by a part of the thought of which it is the symbol. This thinking by the necessary portion only of the thought symbolized is in accordance with what Mr. Mill calls 'the law of Obliviscence,' which is merely what we have already had occasion to notice, the natural tendency of the mind to set aside whatever tends to impede its action in thought, i. e. all that is not immediately necessary; without which tendency thought would speedily become impossible. But Mr. Mill in another place\* lays down the creed of Conceptualism in the most formal terms, viz. : — 'Whether the idea called up by a general name is composed of the various circum-

\* *Logic*, Book IV, cap. ii, § 1.

stances in which all the individuals denoted by the name agree, and of no others, (which is the doctrine of Locke, Brown, and the Conceptualists;) or whether it be the idea of some one of those individuals, clothed in its individualizing peculiarities, but with the accompanying knowledge that those peculiarities are not properties of the class, (which is the doctrine of Berkeley, Dugald Stewart, and the modern Nominalists;) or whether (as held by Mr. Mill) the idea of the class is that of a miscellaneous assemblage of individuals as belonging to the class; or whether, finally, (what appears to be the truest opinion) it be any one or any other of all these, according to the accidental circumstances of the case; certain it is that *some* idea or mental conception is suggested by a general name, whenever we either hear it or employ it with consciousness of a meaning. And this, which we may call if we please a general Idea, *represents* in our minds the whole class of things to which the name is applied. Whenever we think or reason concerning the class, we do so by means of this idea. And the voluntary power which the mind has, of attending to one part

of what is present to it at any moment, and neglecting another part, enables us to keep our reasonings and conclusions respecting the class unaffected by anything in the idea or mental image which is not really, or at least which we do not really believe to be, common to the whole class. We have then general conceptions, we can conceive a class as a class.' Exactly what Berkeley and the Nominalists deny, what Locke and Brown affirm. It matters little whether we call them universals, or concepts (in Sir W. Hamilton's sense,) or class-names, one question has to be answered,—If we cannot think them how did we ever come to know that there are such things as universals—to learn that there are concepts and reason about them—to dream of classes and give names to them? It is the principle of Inseparable Association which has converted Mr. Mill, who seems as determined to account for everything by means of it, as Brown was to perform the same feat by means of Suggestion, Simple and Relative. It is to be feared that there is no philosopher's stone in the Psychological any more than there is in the Chemical world.

Singularly enough Mr. Mill agrees to a certain extent with Sir W. Hamilton, in so far as that he, too, would cut off the individual from the general in his nominal system, by denying to individual names any connotation whatever instead of giving them, what they unquestionably have, the *maximum* of connotation of any name in the predicamental line, at the foot of which they stand. This question we have discussed elsewhere\* and shall not now reopen; it is sufficient to say that in his 'Examination' he backs up this doctrine by two quotations from Reid; the first is—'Most words (indeed all general words) are the signs of ideas; but proper names are not; they signify individual things and not ideas;' the second,—'The same proper name is never applied to several individuals on account of their similitude, because the very intention of a proper name is to distinguish one individual from all others; and hence it is a maxim in grammar that proper names have no plural number. A proper name signifies nothing but the individual whose

\* *Elements of Logic*, p. 16.



name it is ; and when we apply it to the individual we neither affirm nor deny anything concerning him.' A proper name, however, signifies an idea having an individual thing corresponding to it, as much as a general name signifies an idea having a plurality of things (or thoughts) corresponding to it. If it were applied to many individuals on account of their similitude it would not be a proper name any longer. Of course, thus, it only applies to the individual whose name it is, but a general name only applies to the individuals whose name *it* is exactly in the same way, and *horse* can no more be applied to a *cow*, than *John Stokes* can be used to designate *Bill Styles*. The last clause is the only one that bears on connotation, and it is sophistical. When we say *Socrates*, we certainly denote the individual, and make no affirmation or denial concerning him : when we say *man* or *donkey* we denote a class of animals of an indefinite number of individuals, and we neither affirm or deny anything of them as a class. Whatever may be the connotation of *man* or *donkey* it is in the mind of the utterer or of the hearer, and if the hearer hear it for

the first time is has no more connotation than *Socrates* when heard for the first time, or *Papataci*. But *Socrates* has to the utterer or hearer, who has not heard it for the first time a connotation at least greater than the term *man*, and dependent on the knowledge of *Socrates* which the utterer or hearer may have of the philosopher, *in precisely the same way* as the connotation of the names *man* or *donkey* is dependent on the knowledge which the hearer or utterer may have of the classes which they denote.

Sir W. Hamilton has one singular doctrine, which, although he quotes the passage for another purpose, Mr. Mill does not notice. It is that we can have *Negative Concepts*: not negative in the common, old-fashioned sense, in which the word is applied to terms, where *negative terms* are adjectives that express the non-existence of an attribute in an object in which it cannot exist—as *unfeeling* applied to a *stone*; but in the sense that as concepts they are negative in themselves—negative thoughts, or the negation of thought, it is hard to say which, Sir William seems to consider them the same. This is the pas-

sage,\* —‘ We have a positive concept of a thing, when we think it by the qualities of which it is the complement. But as the attribution of qualities is an affirmation, as affirmation and negation are relatives, and as relatives are known only in and through each other, we cannot, therefore, have a consciousness of the affirmation of any quality without having at the same time the Correlative Consciousness of its negation. Now, the one consciousness is a positive, the other consciousness is a negative notion, but, in point of fact, a negative notion is only the negation of a notion ; we think only by the attribution of certain qualities, and the negation of these qualities and of this attribution, is simply, in so far, a denial of our thinking at all. As affirmation always suggests negation, every positive notion must likewise suggest a negative notion ; and as language is the reflex of thought, the positive and negative notions are expressed by positive and negative names.’

Undoubtedly we think of a thing ‘by

\* *Lectures*, Vol. III, p. 102.

the qualities of which it is the complement,' but in so doing we do not 'attribute' those qualities to it; its qualities can only be attributed to it by acts of judgement, not of conception which is 'a grasping into unity' of the results of these judgements. Hear Reid, \*—' This simple apprehension of an object is, in common language, called *having a notion*, or *having a conception* of the object, and by late authors is called *having an idea of it*. In speaking, it is expressed by a word, or by a part of a proposition, without that composition and structure which makes a complete sentence; as *a man*, *a man of fortune*. Such words taken by themselves, signify simple apprehensions. They neither affirm nor deny; they imply no judgement or opinion of the thing signified by them; and, therefore, cannot be said to be either true or false.† 'In bare conception there can be neither truth nor falsehood, because it neither affirms nor denies.' Every judgment, and every proposition by which judgment is expressed, must be true or false; and the

\* *On the Intell. Powers*, Ess. I, p. 243.

† *Ib.* Ess. IV, p. 361.

qualities of true and false, in their proper sense, can belong to nothing but to judgments, or to propositions which express judgments. 'In the bare conception of a thing there is no judgment, opinion, or belief included, and therefore it cannot be either true or false.' And again,\*—'In all judgment and in all reasoning, conception is included. We can neither judge of a proposition, nor reason about it, unless we conceive or apprehend it. We may distinctly conceive a proposition, without reasoning about it at all. We may have no evidence on one side or the other; we may have no concern whether it be true or false. In these cases we commonly form no judgment about it, though we perfectly understand its meaning.' Both on the first and on the last of these passages Sir W. Hamilton has notes the burthen of which is that, Consciousness implies a judgement, a question that we have already sufficiently discussed.

But even if we affirmed a quality in a concept, what then? 'As affirmation and negation are relatives,' (i. e. these *abstract* names

\* *Id.* p. 375.

are relatives), ‘and as relatives are known only in and through each other,’ (this should have been ‘and are known *as relatives* only, &c.’) ‘we cannot, therefore, have a consciousness of the affirmation of any quality without having at the same time the consciousness of its negation,’ (i. e. if we think of a thing of which we know fifty qualities we must think a hundred at least, often more, for some qualities have no direct negatives, such as *red*, the only negative of which is *all that is not red*, or, *blue of every shade, yellow of every shade*, &c. &c.). ‘Now the one consciousness is a positive, the other consciousness is a negative notion’ (only when *viewed in relation to each other*), ‘but, in point of fact, a negative notion is only the negation of a notion’ (true—*when two notions are viewed together*, and the relation between them is judged to be that of affirmation and negation, the negative notion is, *viewed relatively to the other*, the negation of a notion, i. e. *of that notion*); ‘we think only by the attribution of certain qualities, and the negation of these qualities and of this attribution, is simply, in so far, a denial of our thinking at all’ (here’s

a scrape we have got into ! for, mark that we must have an attribution and a negation for *every* quality in *every* concept, so that the 'in so far' seems a greater protection than it really is, and we are fairly done-for in the way of thinking). 'As affirmation always suggests negation, every positive notion' (as *locomotive-engine*, *prime-minister*, &c.), 'must likewise suggest a negative notion ; and as language is the reflex of thought, the positive and negative notions are expressed by positive and negative names' (what's the name of the negative notion of *locomotive-engine* ?).

Of a truth, in this instance, Sir W. Hamilton's language was a reflex of his thought. Upon his premises, however, his conclusion is correct. If we can only think a *horse* by thinking at the same time, what is not an animal, not organised, without four legs, &c., &c., and which, above all, is not existing, our thinking a horse is an evident impossibility.

Such a doctrine could never have been enunciated, had Sir W. Hamilton only started fairly from the foundation ; had he considered that a concept is a thought, and then considered what all thought is and must be.

Neither consciousness, nor the ego, nor the power of presentation of a state of mind can be negative, and what any state or states of mind present to consciousness must be some thought or thing, which may be judged negative when we view it in relation to some other thought or thing, but which as merely the presentee of a state or states of mind must be positive *per se*, as an object of consciousness. There can be no such thing as a thought, and, therefore, no such thing as a concept, which is negative *per se*. And this settles the question as to the nature of our concept of the Infinite; it must be positive.

Though Hobbes began it, Locke and Kant are probably the guides that Sir W. Hamilton followed in his doctrine that we can only form a negative concept of the Infinite, but he carries it further than Locke, for he never says that we can only think it by thinking away all that is finite, he only shows that our idea of it is inadequate in one respect, and allows that there is something positive in it, and calls the remainder negative only as undetermined and confused.\* Besides in another place he denies that negative or privative

\* *Essay on the Hum. Under.*, B. II, c. 17.



words signify 'no ideas, for then they would be perfectly insignificant sounds; but they relate to positive ideas and signify their absence.'\* Now every concept of a thing of which any qualities can be predicated is capable of definition, and every concept of a thing which, as an existence, concrete or abstract, is denoted by a substantive name, is capable of division. If the former be adequate our concept is *clear*, when the latter is adequate it is *distinct*. But distinctness in a concept is of various kinds according to the nature of the whole, and the kind of division of which it is susceptible. We may divide a logical whole into its parts—a *genus* into all its *species*, a *species*, possibly, into all its individuals—and have a logically distinct concept of it. But we can never divide a physical, or a mathematical whole into all its ultimate parts, though we may divide it into its proximate parts, and therefore our concept of such a whole is never perfectly distinct. Now 'The Infinite' is an abstract name, we can define it—That which is without limit—and we have a *clear* concept of it as an abstract name. We can also divide it

\* *Essay on the Hum. Under.*, B. III, c. i., § 4.

into the Infinite in extension, the Infinite in duration, the Infinite in number, the Infinite in power, and the Infinite in knowledge, which are its logical parts, and so have a distinct logical concept of it. But in the concrete, say infinite space, though we can *define* it—space which is without limit—and thereby have a *clear* concept of it, as we had of the abstract, we cannot *divide* it adequately, for the number of its parts is infinite. If we divide it by a dichotomy, one or both of the members will be infinite, and we are just where we were. Therefore our concept of it cannot be *distinct*, and this is what we mean, and all that we can mean when we say that we cannot *comprehend* it.

In the abstract the Infinite does not exclude the Finite, it is the synthesis of all Finites; nor does the Finite exclude all the Infinite, it is itself a part, though an infinitely small part of it. In the concrete, say infinite time, or eternity, it does not exclude the finite, say a day, or an hour, but it is the synthesis of all days and hours; neither does a day or an hour exclude all eternity, for it is a part of it. How is it possible, then, that a

concept, which is the concept of the synthesis of a number of objects of any one of which the concept must be positive, will be negative simply because that number is infinite? For it is no matter how great the number may be, so long as it is finite Sir W. Hamilton admits that the concept is positive.

In the 'Elements of Logic' \* under the head of 'Fallacies in Form' we took as an example Sir W. Hamilton's argument as to the contradiction arising from the impossibility of our attempting to think space as either finite or infinite, while it must be either one or the other. Of this we shall here only quote the conclusion, as Sir William's statement of the question must be, from its frequent quotation by all writers on these subjects, familiar to every one:—It resolves itself into two syllogisms,

I.

*'By the law of excluded middle one of two contradictories must be true ;*

*But the existence of a finite all-containing space, and the existence of an infinite space are contradictories,*

\* P. 170.

*Therefore one of them must be true, i.e. must really exist.'*

2.

*'We cannot form a concept of the actual existence of a finite all-containing space, nor can we form a concept of an infinite space ; But, from (1), one of these must exist, Therefore something must exist of which we cannot form a concept, which is ex hypothesi impossible.'*

'In these syllogisms it is plain that the terms which are given as contradictories in (1) are not those given as contradictories in (2). In the former it is the *existence* of the two kinds of space which are assumed (and correctly) to be contradictories ; in the latter it is the *existence of the finite all-containing space* of which it is, first, predicated that we cannot form a concept ; but it is not the *existence* of, but the *infinite space itself* of which it is, secondly, affirmed that we cannot form a concept, and, therefore, the *minor* does not hold with regard to them, as they cannot be opposed, not being contradictories. There are four concepts in the whole—

1. *Of a finite all-containing space ;*

2. Of the actual possible existence of such a space ;
3. Of an infinite and all-containing space ;
4. Of the actual possible existence of such a space.

‘ It is the 2nd and 4th which are given as contradictories in the first syllogism ; the 2nd and 3rd which are given as contradictories in the second.

‘ Before leaving it we may mention in regard to the matter, that 1 is a concept which we can form ; 2 is a concept which an educated and philosophical mind\* cannot form, but which the great mass of mankind ever have formed, and probably always will form ; 3 is a concept which we can form *clearly* but not *distinctly* ; it is clear because we can give a perfect definition of *infinite space* ; it is not *distinct*, because we cannot divide *infinite space* logically, except by a dichotomy, which does not give distinctness to a concept, and therefore it is said correctly that we cannot *comprehend* infinite space, not that we cannot *conceive* it ; 4 is a concept which every well-educated and philosophic mind can and must form.

\* We should have said ‘ nowadays ; ’ see *Ib.* p. 173.

‘We need not waste time in showing that a similar error underlies the reasoning as to the other pair of contradictories, where extension is considered as a part.’

In his Examination of Sir W. Hamilton’s Philosophy Mr. Mill is nowhere so happy as when he gets on the philosophy of the Unconditioned, and the consideration of its two species, the Infinite and the Absolute. With a perfectly clear apprehension of the matter, he points out at once and distinctly the absurdity involved in contemplating the abstract as the concrete;—the paralogisms of Sir W. Hamilton as to our incapability of conceiving the Infinite or the Absolute;—the ambiguity of this latter term as used by Sir William;—the contradiction that ensues whether we take one of his definitions of it, and then view it simultaneously as the Infinite, or we take the other and then view it as the First Cause;—that the use of the term ‘The Infinite’ as synonymous with God (Mr. Mansel says from a reverential feeling) is a continual source of error, of the worst, because it is of the most important kind, and does not serve the desired end; \*—

\* See *Elements of Logic*, p. 26, n.

See see

that the term *infinite* as applied to many qualities of both material and spiritual existence, and among them to the moral attributes of God, is wholly inappropriate, the proper term being *absolute* or perfect;—that to view God as an infinity of infinite attributes, viz.: as a Being of whom nothing can be denied, and of whom at the same time everything must be affirmed as infinite, or absolute in degree, is *nonsense*;—that the infinite in space (extension), time, or number—the conjugates of existence—is not always the same in quantity, but has different values;—and that Sir W. Hamilton constantly gets bewildered by supposing that the infinites of these three conjugates are not only the same in quantity but in kind. All this he does so well as to leave scarcely any room for remark. We can only say that he unfortunately re-introduces the Relativity of Knowledge in his favourite third meaning of the phrase.

Considering matter to be as we know it, and not as we do not know it, the Infinite can only exist in material extension, in number of material parts or individuals, and in material duration. Of the other qualities of

matter, infinite weight can only exist as the concomitant of infinite extension, though it is not necessarily its concomitant; while hardness, density, fluidity, etc., do not admit of the term *infinite*, but only of *absolute*. One quality of one form of matter we should say admits of the term infinite, viz.: the expansibility of a gas, i.e. the creation of one finite portion of a gas, say a cubic inch of any definite density, necessitates the extension of that gas through space to a distance from the point of its creation, which is only a function of the time of its existence, and of a modulus representing the individual rapidity of expansion of that kind of gas; or, if the latter be a constant—it may be a function of the density—to a distance which varies simply as some function of its duration. This, however, is generally denied.

The moment we allow that God is eternal, that is, has existed from all eternity, we must be prepared to admit as a possibility that matter may be eternal also; for He may have created it from all eternity, and it is not one whit less created, nor is God in any way altered in His relation to it as its Almighty



Creator, if He created it from all eternity, than if, to suit *our* fancy, we suppose that He created it at any definite instant of time. And in estimating the probabilities, so far as our human judgement goes, we must always take into account the fact, that if God created matter at any finite period He must have existed an eternity before its creation.

In spiritual existence we can conceive the Infinite only as existing in extension, duration, power, and knowledge; all other spiritual attributes that we know of only admit of the term Absolute.

A point that we are apt to overlook in these matters is, that only that which *has existed from all eternity* is or can ever be eternal. That which commenced to exist at any definite period never can be eternal, for, however far from its origin we can imagine any period of its existence to be, that existence is still finite, and it is not till the expiration of eternity (i.e. it is *never*) that it can be eternal.

Let us for a moment consider infinite extension. If we conceive in space two parallel straight lines, both of which extend infinitely in either direction, at a constant distance, R,

from each other, and that while one is fixed the other revolves round it; the surface which the revolving line describes will be cylindrical, and the space included by it, i.e. the volume of the cylinder, will be  $\pi R^2 \times$  the length of the axis,  $= \pi R^2 \times \infty = \infty$ . Let us, for the sake of distinction, denote the first  $\infty$  by  $\infty_1$ , and the second by  $\infty_3$ . Now it is clear enough that these two infinities are not of the same kind;  $\infty_1$  is an infinity of linear extension, while  $\infty_3$  must be an infinity of cubic extension, for  $\pi$  is only a numerical coefficient, — the ratio of the semi-circumference of a circle to its radius, or, expressing it differently, the circular measure of two right angles—but  $R$  is a linear magnitude,  $R^2$ , therefore, will be a surface, or of two dimensions, and, therefore,  $R^2 \infty_1$  will be of three dimensions, that is  $\infty_3$  is of three dimensions. Let us now suppose the distance between the lines to be  $2R$ , and the one line to revolve round the other as before, then the volume of the cylinder will be, in a similar way,  $4\pi R^2 \times \infty_1 = \infty'_3$ . Dividing this by the first equation we have  $4 = \frac{\infty'_3}{\infty_3}$ , or one of these two infinities which are quite comparable, being of

the same kind (space in three dimensions,) is four times as great as the other ; and between any two values of  $R$ ,  $R_1$  and  $R_2$ , we can have an infinite number of infinities all differing in magnitude.

Any of these cylinders can be cut by a perpendicular plane at any point, and the halves of it thus divided will each of them be infinite in volume, and from a half of it any portion may be cut off by another perpendicular plane, and still leave an infinite remainder, and so on *ad infinitum*, and it is manifest that in this case neither the half cylinder nor any of that infinite number of remainders, though each is infinite in volume is equal to the volume of the original cylinder, or to any other of themselves.

In a similar way we might divide by planes all passing through the axis, or by planes parallel to any of these planes, in an infinite number of ways into an infinite number of parts.

But we have already seen that we can have an infinite number of cylinders between  $R_1$  and  $R_2$ , and  $R_1$  may have an infinite number of values as also  $R_2$ . If we take the numeri-

cal sum of these infinites at each stage, first of one cylinder divided in one way into an infinite number of parts, then of that cylinder so divided in an infinite number of ways, then of an infinite series of such cylinders so divided between the values of  $R$ ,  $R_1$  and  $R_2$ , then of an infinite number of such series corresponding to an infinite number of values of  $R$ — $R'_1$ ,  $R''_1$ , &c., of which  $R_1$  is the greatest, and then of an infinite number of values of  $R_2$ — $R'_2$ ,  $R''_2$ , &c., of which  $R_2$  is the least and so on, we shall have an infinite number of numerical sums which are all infinite, but none of them equal. So it is equally clear that in number as well as extension  $\infty = \infty$  is not necessarily true.

In duration,\* after what we have said, the same thing is easily seen.

In general we may say that supposing that the infinities compared are the same in kind  $\infty = \infty$  is not necessarily true.

In linear extension infinities are equal, and

\* Duration is analogous to linear extension except in one respect, it only can extend infinitely in one direction, *ab ante* as Sir W. Hamilton calls it. What he calls eternity *à post* never will be.

$\infty_1 = \infty_1$  is true necessarily, when in each case the extension or duration is infinite in both directions. In plane superficial extension,  $\infty_2 = \infty_2$  is necessarily true when each of these infinities  $= \infty_1 \times \infty_1$ , that is when they are both planes extending infinitely in every direction. In cubic extension,  $\infty_3 = \infty_3$  is necessarily true when each of them equal  $\infty_1 \times \infty_1 \times \infty_1 = \infty_2 \times \infty_1$ , that is when they are identical with one another and with the infinity of space.

Thus we see that Kant's proposition (in the Observations on the Thesis of the first Antinomy)—'A Quantity is infinite if a greater than itself cannot possibly exist,' is true as a proposition, but is not a definition of an infinite quantity, as there may be an infinite quantity than which a greater can exist, and not only that, but than which an infinite number of greater quantities can exist, all of which, again, are unequal in quantity.

The infinite in extension is not comparable with the infinite in duration, or the infinite in number, nor are these last comparable with each other. The infinite in number may co-exist with the finite in extension or duration.

These trifling, and, to any ordinary mind,

palpable truths, are the keys to the paradoxical puerilities which Sir W. Hamilton called\* ‘Contradictions proving the Psychological Theory of the Conditioned,’ which his Editors, from due regard to the memory of their Master, should have committed to the flames.

Mr. Mill smiles at these paradoxes, but, in a quiet way, he can be taken in himself: the following is a note in his chapter on the Philosophy of the Conditioned,† where he is working his pet theory of Inseparable Association:—‘That the reverse of the most familiar principles of arithmetic and geometry might have been made conceivable, even to our present mental faculties, if those faculties had coexisted with a totally different constitution of external nature, is ingeniously shown in the concluding paper of a recent volume, anonymous, but of known authorship, ‘Essays by a Barrister.’

‘“Consider this case. There is a world in which, whenever two pairs of things are either placed in proximity or are contemplated together, a fifth thing is immediately created,

\* *Lectures*, Vol. II., p. 527.

† *Examination*, p. 69.

and brought within the contemplation of the mind engaged in putting two and two together. This is surely neither inconceivable, for we can readily conceive the result by thinking of common puzzle-tricks, nor can it be said to be beyond the power of Omnipotence. Yet in such a world surely two and two would make five, i. e., the result to the mind of contemplating two two's would be to count five. This shows that it is not inconceivable that two and two might make five: but, on the other hand, it is perfectly easy to see why in this world we are absolutely certain that two and two makes four. There is probably not an instant of our lives in which we are not experiencing the fact. We see it whenever we count four books, four tables or chairs, four men in the street, or the four corners of a paving-stone, and we feel more sure of it than of the rising of the sun tomorrow, because our experience upon the subject is so much wider, and applies to such an infinitely greater number of cases. Nor is it true that every one that has once been brought to see it, is equally sure of it. A boy who has just learned the multiplication

table is pretty sure that twice two are four, but is often extremely doubtful whether seven times nine are sixty-three. If his teacher told him that twice two made five, his certainty would be greatly impaired.

‘“It would also be possible to put a case of a world in which two straight lines should be universally supposed to include a space. Imagine a man who had never had any experience of straight lines through the medium of any sense whatever, suddenly placed upon a railway stretching out on a perfectly straight line to an indefinite distance in each direction. He would see the rails, which would be the first straight lines he had ever seen, apparently meeting, or at least tending to meet at each horizon; and he would thus infer, in the absence of all other experience, that they actually did enclose a space, when produced far enough. Experience alone could deceive him. A world in which every object was round with the single exception of a straight, inaccessible railway, would be a world in which every one would believe that two straight lines enclosed a space. In such a world, therefore, the impossibility of con-



ceiving that two straight lines can enclose a space would not exist."

'In the "Geometry of Visibles" which forms part of Reid's "Inquiry into the Human Mind," it is contended that if we had the sense of sight, but not that of touch, it would appear to us that "every right line being produced will at last return into itself," and that "any two right lines being produced will meet in two points." Chap. vi. sec. 9 (p. 148). The author adds, that persons thus constituted would firmly believe "that two or more bodies may exist in the same place." For this they would "have the testimony of sense," and could "no more doubt of it than they can doubt whether they have any perception at all, since they would often see two bodies meet and coincide in the same place, and separate again, without having undergone any change in their sensible qualities by this penetration.'" (p. 151.)

In the first instance, granting Mr. Mill and his Barrister their postulated world, created either by a *prestidigitatore* or by Omnipotence, so that when two and two come together a fifth shall always be present alike in percep-

tion and in imagination, the result does not follow; two and two would no more make five there than here; for, *ex hypothesi*, it is two and two *and another* that make five. Although when two and two are together there will always be a fifth present, its presence does not necessitate its being included in the sum of the two and two; they can still be added together without *it*. Can we not add four sides of a pentagon either as units, or as two proximate pairs of sides, or as two proximate sides and two remote ones, or in any other way we please? And yet a pentagon was never either seen or imagined without five sides. The whole puzzle vanishes if instead of saying, 'two and two make four,' we say, 'the sum of two and two is four.'

The second case is as fallacious as the first, for allowing the man, inexperienced in straight lines, to be placed on the straight, *inaccessible* railway, and that in the most favourable position and manner that can be, viz.: with one eye shut and the other open, and the latter always immediately over one rail, i. e. always in the plane passing through that rail

and the earth's centre, he would not see the other rail as a *straight* line, but as *curved*. He would see the rail over which his eye was placed as a straight line according to Euclid's definition, for it would be the shortest line that could join the vanishing points, and therefore he could not imagine the other to be a straight line according to that definition, and his sense of sight would tell him that 'it was not straight' into the bargain. In any other position, either between the rails, or outside of them, he would see them *both* as *curved*.

Reid in the passages quoted is equally paradoxical. If man had sight and not touch, he would never believe that such a thing as a right line existed, for it would be only in certain positions that he would see it as straight, in all others it would appear curved, and it would be as easy to persuade a man, as he is, that the circumference of a circle is a straight line, because it appears so when his eye is in the plane of the circle as to persuade the hypothetical individual that any line was straight.

In the second case, if man had the power of locomotion, the sense of sight alone would

explain to him the phænomenon. But if man had not the power of locomotion, but was born, lived, and died in the same spot, like a tree, while certain other objects moved around him, the case would be different. He would then have no idea of extension, except as lineal and superficial; the world would be to him a picture, in which the objects were mere surfaces; and he would, if unfortunately he were a philosopher, puzzle himself all his life to discover the law whereby strong surfaces obliterated weak ones, and to explain why one surface was at one time weaker and at another time stronger than another—as when a sheep passed first behind a tree and then in front of it. After all, he would be wiser than some philosophers, for he would be wasting his wits on matters, which, though inexplicable to him, were matters of fact.

Mr. Mill in his chapter on ‘The Psychological Theory of the Primary Qualities of Matter,’ goes at some length into the partly psychological partly physiological inquiry as to how we get our concepts of extension, form, distance, &c., by sensation, and refutes some opinions of Sir W. Hamilton’s on the

subject, and also quotes at considerable length from Professor Bain's clever work on 'The Senses and the Intellect,' to show that our perceptions of extension, &c., are *simply* the result of the resisted or unresisted movements of our arms, eyes, &c., through certain angles. We shall not quote the passage nor enter into analysis of it, for though the subject is interesting in its details, as showing not the origin, but the mode of evolution of our innate ideas, and their elaboration from the absolutely simple form in which they appear originally in the mind, it is not a metaphysical question. All that we have to do with the subject in metaphysics is, simply to show that we can only know what is material, that is, what is external to us, by sensation ; that we cannot know the ego, nor our mind in any of its states by sensation ; and, further, that we cannot possibly prove that certain ideas, viz. : of space, externality, &c., can spring from experience without assuming *a priori* the existence of the very idea whose origin we profess to account for. We shall, however, ask one or two questions on the subject, answers to which must, we think, throw some light upon it.

Did either Mr. Mill or Mr. Bain ever happen to see a new-born lamb? If so did they ever see it try to walk through a wall or a tree? Did they never see it ere it was an hour old avoid bumping on the former or walk round the latter without touching it? When were its muscular resistances that gave it the idea of externality? When did it discover extension by the range and amount of movement of the muscles of its limbs or its eyes? Probably we shall be told that it knows these things instinctively—that the knowledge is innate. Then why should such instinct be denied to man? Has humanity no instincts? Who teaches infants to suck? to cry when they are uneasy? to be still when they are at ease? It is natural to them. Precisely: it is natural, i.e. it is innate; and so are the rudimentary ideas of space, and time, and number, &c. We cannot believe that the human intelligence is alone of all the intelligences that we are acquainted with to have no original ideas inherent in it; to be merely fictile, or impressionable; to be on earth but the creature of circumstances over which it has no control; but *that* is the result to which this

doctrine inevitably leads. No more can we believe that, according to this assumption, it has to learn by experience, and sometimes by *repeated and invariable* experience, ideas which it must have as soon as it has fairly the power of thought.

Mr. Mill, as we have already had occasion to remark, sets great store by the doctrine of 'Inseparable Association,' as propounded by his father, the late Mr. James Mill, whose statement of it he quotes. In so far as that statement goes there is nothing in it that is not very generally acknowledged and agreed to. It is merely the enunciation of the following facts:—We know everything as having certain qualities and relations, be the object of our knowledge pure thought or the perception of an external object through sensation. Observe this is not the doctrine of the Relativity of Knowledge in its third sense; *that* is, That we only know anything *by its relations* to other things; *this* is, that we know it not *by its relations* but *as related*: for not only may we know, but at some time we must have known something without any relation, except its relation to the ego; otherwise our

knowledge never could have had a beginning at all. That being so, and it being at the same time granted—for it is impossible to deny it—that we can only remember what we have known, and as we have known it, we must remember every thing with the qualities we have known in it, and as it is related to other things, i.e. as it has been thought or perceived by us. Here again we must pause and explain. When we say that we can only remember a thing as we knew it, we mean that, we do not remember it with any other qualities or relations than those which we originally thought it with or perceived in it, not that we must remember it with *all* the qualities and relations that we formerly knew it with. When the thing remembered is of old date we shall find upon analysis that, generally, in our remembrance of it memory supplies only a few, sometimes very few, of those qualities and relations with which we represent it to ourselves, and the remainder are supplied by creative imagination, or fancy. When we have an opportunity of comparing the supposed remembrance with the original, we shall find this to be always the case, more or less.

Certain things we cannot know at all except



as related to others ; the instances which Mr. James Mill gives of our never knowing colour except as coexisting with extension, and similarly our always thinking solid objects as of some definite form, give at once a clear idea of the doctrine in its most perfect and undeniable form ; the form in which it is truly the doctrine of *Inseparable Association*. But still this is only in the *concrete* ; in the *abstract* our idea of colour is totally distinct from our idea of extension, our idea of solidity from that of form : were it not so, we should only have one idea of extension and colour, and only one name for it, and one idea of solidity and form, and one name for it ; and then, as we cannot have form without extension, or extension without form, we should in like manner have only one idea of the two, *i.e. now* of the whole four, and one name would serve for them all. This Mr. J. S. Mill sees, for he says,\* ‘It is evident, indeed, that the existence of abstract ideas—the conception of the Class-qualities in themselves, and not as embodied in an individual is effectually precluded by the law of Inseparable Association.’ To return

\* *Examination*, p. 314.

to Mr. James Mill, these qualities and relations of a thing or thought which have been uniformly known along with it are said by him to be inseparably associated with it; and all our ideas of these qualities and relations, viewed simultaneously, form our idea of the thing—one complex, though seemingly simple, whole.

There is nothing here that will be generally objected to, but Mr. J. S. Mill gives a different turn to the matter when he is laying down the ‘*Psychological Theory of the Belief in an External World:*’ He there says :\*—‘When two phænomena have been very often experienced in conjunction, and have not, in any single instance, occurred separately either in experience or in thought, there is produced between them what has been called *Inseparable, or less correctly Indissoluble Association:* by which is not meant that the association must inevitably last till the end of life—that no subsequent experience or process of thought can possibly avail to dissolve it; but only that as long as no such experience or process of thought has taken place, the association is

\* *Examination*, p. 191.

irresistible ; it is impossible for us to think the one thing disjoined from the other.' Now this includes an infinity of cases very different from those given as examples in the statement of Mr. James Mill, viz. the inseparability of the concrete ideas of colour and extension, of solidity and form ; for it applies to numerous ideas which we have never had apart, but which we might easily suppose possible so to exist : *e.g.* Before the discovery of America, crabs were supposed always to live in the water ; now we know that there is a species that can live on land. Before the discovery of Australia it was supposed impossible for a mammal animal to have the bill of a bird ; the *ornithorhyncus paradoxus* has unsettled our ideas on that head. We still think it impossible that men's heads can grow beneath their shoulders ; but that may be found to be erroneous some day. Mr. Mill allows that such associations may be broken up, still he insists on calling them *inseparable, i.e.* 'what cannot be separated or disjoined, what cannot be parted.' He gives a class of instances which are familiar, and very suitable for the purpose of showing the futility

of the doctrine — the acquired perceptions of sight. ‘What we see is a very minute fragment of what we think we see. We see artificially that one thing is hard, and another soft. We see artificially that one thing is hot, and another cold. We see artificially that what we see is a book, or a stone, each of these being not merely an inference, but a heap of inferences from the signs which we see to things not visible.’ Exactly; all these are *inferences*, but *inferences* are not *associations*, and all these inferences imply belief *a priori*.

His Psychological Theory of the Belief in an External World may be dismissed with a very few words. It commences thus: \*—‘This theory postulates the following psychological truths, all of which are proved by experience, and are not contested, though their force is seldom adequately felt by Sir W. Hamilton and the other thinkers of the introspective school.

‘It postulates, first, that the human mind is capable of Expectation. In other words, that after having had actual sensations, we are capable of forming the conception of Possible

\* *Examination*, p. 190.

sensations ; sensations which we are not feeling at the present moment, but which we might feel, and should feel, if certain conditions were present, the nature of which conditions we have, in many cases, learnt by experience.'

This is quite enough ; any one can see that this Expectation implies belief *a priori*.\* Mr. Mill, first of all, postulates what he wants to prove, and after that his task is not a hard one. So the 'Psychological Theory of the Belief in an External World' goes down the wind to the limbo of all *petitiones principii*. There is no fallacy so deadly in philosophy as that of a Vicious Circle. Those to whom it is addressed seldom see it, those who use it never see it. The Sophist, in the common and bad acceptation of the term, rarely employs it, for when a person knows it beforehand it seems too transparent for others not to see through it, so he quibbles, or equivocates, or

\* 'EXPECTATION, *n.* The act of expecting or looking forward to a future event with at least some reason to believe the event will happen. *Expectation* differs from *Hope*. *Hope* originates in desire, and may exist with little or no ground of belief that the desired event will happen. *Expectation* is founded on some reasons which render the event probable.'—*Webster's Dictionary*.

in some way manages to get a fourth term into his syllogism, which is after all a fallacy that in all its varied forms is more likely to be detected than the other. But the plain, practical man in his quiet speculations in philosophy and religion, still more the eminent philosopher in his keener, more technical, though it may be no deeper lucubrations, and most of all the bigot and the enthusiast, use it continually. We doubt not that there are plenty of our own in these pages. The crucial test of *a priori* concepts of pure reason is,—Whenever an attempt is made to prove their origin from Experience it involves a *petitio principii*.

Naturally Mr. Mill follows the Empirical School in their doctrine of Causation. That 'it is experience which proves the fact of causation, and association which generates the idea,' is, he says, substantially the doctrine of Hume and Brown, and, he might have added, substantially his own. There is probably no one who will deny that the effect is always subsequent, and immediately subsequent to the cause. That we derive our idea of causation from things being necessarily associated in our

minds in such invariable and immediate consecution can, however, scarcely be true. The most frequent instance of invariable and immediate consecution that falls under our observation is that of time; one instant follows another invariably and immediately; we cannot imagine an instant that had not an immediate predecessor, and an immediate successor. Yet we never heard of any one's accusing one instant of being the cause of the next. The earth rolls on in its orbit, season succeeds season in immediate and invariable consecution; year succeeds year in the same manner; yet whoever said that summer caused autumn, or winter, spring; or that one annual revolution of the globe was the effect of the preceding one? Hume allows that in the common conception of power there is an additional element—an animal *nisus*, which Mr. Mill says would be more properly termed a conception of effort, and he adds,\* ‘the idea of Effort is essentially a notion derived from the action of our muscles, or from that combined with affections of our brains and nerves.’ But is there no such thing as mental effort, as a *mental nisus*?

\* *Examination*, p. 306.

Is it not probably experienced in our rational existence as soon as, or even sooner than, any muscular effort? When the child is learning what its muscular effort is, is there no mental effort to comprehend it? Does it learn to understand what is said to it, and to reply without an effort? Surely mental effort, if effort has anything to do with the idea of causation, has as much say in the matter as muscular effort. But the idea of effort implies *a priori* the idea of power; a powerless effort, in the proper sense of the words, is nonsense; we cannot have the idea of an effort without having the idea of the power to make it. The effort is itself an effect, the maker of it is the cause, in virtue of his power to make it.

Mr. Mill says that he is ignorant of being possessed of any power in himself to influence his volitions. 'I can indeed influence my own volition, but only as other people can influence my volitions, by the employment of appropriate means.' This may mean something very dreadful, or it may mean very little, or it may mean nothing at all. Does Mr. Mill merely mean that he persuades himself to do anything, as another



person might persuade him? and if so, does he so far miss the correct analyses of these two cases as to believe that they are identical in their nature? Or is he a disciple of electro-biology, and does he fancy that all volition is the result of animal magnetism, or mesmerism, or whatever it may be called? The assertion wants explanation, which Mr. Mill does not give; he only rivets it with a tap of the hammer: 'Direct power over my volitions I am conscious of none.' Indirect power we suppose he has—'the appropriate means' alluded to before; it would be interesting to know how he employs these without willing to do so, *i.e.* without a volition *à priori*.

However, after the too frequent inconsistencies of Sir W. Hamilton, it is refreshing to find Mr. Mill thoroughly consistent; and he ends in the Positivism of M. Comte, with the most logical accuracy of deduction from the premises which he has assumed. As Dr. Whewell says, in his 'Philosophy of the Inductive Sciences,' When the empirics of the school of Locke denied reflection as an origin of our ideas—a denial by the way

which they could not help, for in Locke's philosophy the assuming reflection to be in any way an *origin* of ideas was absurd—and sought their source in sensation alone, Positivism was the necessary end to which, if they reasoned rightly, they must ultimately come : there can be no other logical conclusion. That conclusion as expressed by Comte is, that in the race—and, under certain circumstances, in the individual—there is a regular progression from, first, the theological conception of the universe to, secondly, the metaphysical ; and thirdly, the positive, wherein nothing is included but general representations of facts—phænomena arranged according to relations of succession and resemblance. According to Mr. Mill it is the idea of power, a purely subjective notion, the product of generalisation and abstraction acting on the real feeling of muscular or nervous effort, which 'is the psychological rationale of Comte's great historical generalisation, that the Metaphysical conception (as he terms it) of the universe succeeds by a natural law to the Fetish conception, and becomes the agent by which the Fetish theory is transformed into

Polytheism, this into Monotheism, and Monotheism is frittered away into energies and attributes of nature, and other subordinate abstractions.' Until, he might have added, we come to the great Comtish conception of God as the aggregate of all mankind, except some who are very bad indeed (*producteurs de fumier*), and including some useful animals (*dignes auxiliaires animaux*).

We refer those who are curious in matters of Positivism—not an attractive study in itself—to Dr. Whewell's 'Philosophy of the Inductive Sciences,' book xii. cap. 16. They will there find it plainly and intelligibly exposed as erroneous in itself as a system, and as based on false and inadequate views of the progress and facts of physical science, and its connection with metaphysics, and therefore, ultimately, with theology.

Mr. Mill has a chapter upon 'Freedom of the Will' in which he exposes the mistakes that Sir W. Hamilton fell into in the little that he says upon the subject. Sir William's doctrine is, that we can neither understand how the will can nor how it cannot be free, but we are to believe that it is free, because

we are conscious that we are responsible for our actions, and indeed unless the will be free there can be no mind, but every existence must be material, and there will be no Moral Governor of the Universe, and therefore no God. A free volition in his meaning of the phrase is a volition that is not the effect of any motive—or in other words, freedom of the will is a power of *motiveless* volition. Mr. Mill, on the other hand, considers absolute freedom of the will only to exist when there is a power of volition *against* motive.

There can be no question but that the will always acts in obedience to what Leibnitz calls 'a sufficient reason,' and that it does so *necessarily*; for as the motive is the product of the judgement of the agent, unless the will followed it necessarily, the agent—the producer of the motive—would not be free. The case where the sufficient reason (more properly the *seemingly* sufficient reason) would apparently cause us to will that which it is impossible we can perform, and in which we do not will at all, is only an *apparent* paradox; for the known impossibility is really the sufficient reason why we do not will in that case, and

were the impossibility not known to us we should will, as, in fact, children frequently, and older people, who should know better, occasionally do. But though Leibnitz was a Necessitarian, the doctrine that the will is only moved by and always necessarily obeys a sufficient reason is not by any manner of means a doctrine that implies necessity in the agent. Liberty and necessity do not apply to the will, but to what is the real power in man—that which forms the motive that influences the will—the judgement. Judgement involves two distinct mental acts, both of which are necessary to its existence. We have only one name in common use for them both—judgement; yet they are not only distinct but separable. The first is the comparing of the two terms of the judgement, the second is the pronouncing the result of the comparison as a decision. It is clear that the latter cannot exist without the former, but the former can exist without the latter; when we doubt we compare, but do not decide. Now in action a decision of the judgement is a motive. We may in regard to any act have many judgements, many mo-

tives, but we eliminate them all but one, which is the cause of the volition, the sufficient reason. We eliminate them by comparing and deciding between them as to which is the preferable, till one resultant motive is left. It is as when in dynamical science a particle is acted on by numerous forces; whatever their number be they have either a single resultant in obedience to which the particle does and must move, or they entirely neutralize each other, and the particle remains at rest. The latter is the case when having compared motives urging the will in opposite directions we cannot decide—we cannot judge but doubt—which may be the preferable, and the will stirs not. Then the question of the freedom of the will is a misnomer: it is the freedom of the judgement that is the true point at issue. The will is necessitated to follow the motive, for supposing the agent to be free if the will ran counter to his judgement, his freedom would be abrogated by his will. The question is, has a man power in the formation of the final motive—the sufficient reason that is the real mainspring of his action—or has his will to obey a motive

formed by circumstances, *i.e.* either the immediate work of God in his mind, or merely fortuitous?

Now Mr. Mill's Determinism is so far from being a necessitarian doctrine that it naturally and irresistibly leads him to proclaim liberty, in the following words: \*—  
'The true doctrine of the Causation of human actions maintains, in opposition to both (the doctrine, *i.e.* of Freedom of the *Will* and Fatalism), that not only our conduct but our character is in part amenable to our will; that we can, by employing the proper means, improve our character; and that if our character is such that while it remains what it is, it necessitates us to do wrong, it will be just to apply what will necessitate us to strive for its improvement, and so emancipate ourselves from the other necessity; in other words, we are under a moral obligation to seek the improvement of our moral character. We shall not indeed do so unless we desire our improvement, and desire it more than we dislike the means which must be employed for the purpose.' But this implies

\* *Examination*, p. 516.

the free power of judging—deciding—that our character can be improved, and the will necessarily following on that to use the means, to seek for guides that will direct in the formation of motives to influence our actions; the seeking these implies that we have a motive. Using the right means to improve our character implies a judgement as to what is right. It surely implies freedom when a man judges at all; if a man were not free his judgement would be a piece of useless lumber, he could not judge. In other words the power of judging is liberty, the want of it is necessity. In a passage which we have previously quoted, Mr. Mill says that he is conscious of having no more power of moving his will than any other person has of moving that same will, viz.: the using the proper means. Now if Mr. Mill means by this that a sufficient reason has the same irresistible power of commanding the obedience of his will whether it be originally his own or supplied by another person, he is so far right; but he is wrong in this respect, that though the reason be not *originally* his own, it is not the suggester nor the reason of the suggester that



moves his will, it is his own sufficient reason—the confirmation of the suggested reason by his, Mr. Mill's, own judgement—without which confirmation his will would not budge in the matter.

But in considering motive as influencing the will in moral actions to do what is right, Mr. Mill, while he very justly gives due weight to the fear of punishment if we do wrong, lets it have too great a share of the merit, for he utterly ignores the possibility of our being moved to do right by the love of doing so. Again, while he admits the efficacy of punishment as a preventive of the re-commission of a crime by the same individual, or its commission by another who is aware of the punishment, he ignores any claim to its infliction as a right of Justice—we do not mean as mere recriminatory vengeance, but as atonement, and he does not apparently imagine that the punishment can have any value to the person punished *in relation to the past offence* for which it is inflicted, by producing repentance in him; in fact, repentance as in any degree atoning for a past fault is a feeling that can have no place in a system of

strict utilitarianism. But the whole matter is more ethical than metaphysical, so here we leave it, only noticing the extremely vain and profitless question, whether a person who knew perfectly our character and our circumstances could predict our actions. Such a question we cannot possibly determine, for a human intelligence to know perfectly our character and circumstances would require, for the former, to know more of us than we know of ourselves, and for the latter, to be identical with us; and as to any superhuman intelligence, we can only say that omniscience alone can fulfil the premises, and it involves the conclusion.

Why Mr. Mill should have wasted a whole chapter on 'Sir W. Hamilton's Opinions on the Study of Mathematics' we cannot possibly conceive. The best answer to them is to be found in his own writings.

In matters logical the war between Mr. Mill and Hamiltonism is much like the battle between the birds and the beasts—they do not fight in the same element. Mr. Mill sturdily persists that what most people call Logic, and have called Logic since the days

of Zeno of Elea, is only a part, and the most unimportant part, of Logic ; that the great and really important part of Logic is Induction ; that Induction is the Science of Evidence in the matter of probability ; that what is commonly called a perfect Induction, that is, one in which all the actually existing parts of the whole are known and can be enumerated, and have the predicate of the syllogism affirmed or denied of them, is no Induction ; that reasoning by analogy where there is no Induction is Induction, &c. There has been a considerable tendency for some years to talk of Induction in a wild and illogical manner ; and perhaps Mr. Mill, in spite of Dr. Whewell's correction, does so as much as any one. But Hamiltonism is strong on Aristotle's Organon, and pays little heed to Induction, though Sir W. Hamilton is very clear and decided in assigning to Induction—*real* Induction—its proper and legitimate place in Logic. The consequence of this difference is, that when Mr. Mill attacks Sir W. Hamilton on such points as 'The Laws of Thought as Thought,' 'Reasoning in Comprehension and Extension,' 'The Quantifica-

tion of the Predicate,' &c., his onslaught is far from being so successful as in *Metaphysics*. But these are matters on which we have expressed our opinion elsewhere. We can only say, in conclusion, that whereas Sir W. Hamilton, the upholder of the Syllogistic Logic, was a bad reasoner, Mr. Mill, who grievously underrates it, is a good one.

LONDON

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